UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

0 JUL 1985

Dr. Dorothy Soule
SOS Environmental Inc.
2361 Hill Drive
Los Angeles, California 90041

RE: Changes to the American Samoa Draft Environmental Impact Statement

Dear Dr. Soule:

Thank you for the package containing revisions to Chapter 3 of the American Samoa Draft Environmental Impact Statement (DEIS) for designation of a fish waste disposal site. I have enclosed a marked-up copy with my comments.

The revised cover and site map are good. The discussion on the waste composition over time, the tables and the graph of the data are excellent. I am somewhat concerned that you should add a reference to our conversation about the 2 standard deviation outlier definition unless you have found a statistical reference that allows this usage. I will accept the responsibility for this definition.

I believe that we should not remove the reported amounts of waste dumped at the site for January and May 1982 from the overall calculation of average waste dumped (Table III.3). Please see my additional notes on sampling (p. III-23) and monitoring (p. III-25).

When these changes are made we will be ready to publish the DEIS. Please let me know when you will be prepared to print the necessary copies. If you have any questions, call me at (415) 974-0257.

Sincerely,

Patrick Cotter
Regional Ocean Dumping Coordinator

Enclosure

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

In Reply
Refer To: W-7-1

1988

SUBJECT: Issuance of a Final Research Ocean Dumping Permit for Disposal of Cannery Wastes from Fish Processing Plants in American Samoa

Dear Interested Party:

The U.S. Environmental Protection Agency (EPA), Region 9 has issued a research permit, No. OD 88-01, to Star-Kist Samoa, Inc. and Samoa Packing Company. The permit has been issued under Section 102 of the Marine Protection, Research and Sanctuaries Act (MPRSA) of 1972 (33 USC 1401 et seg.). The permittees are authorized to dispose of cannery wastes, produced at fish processing plants in Pago Pago, at an ocean disposal site approximately 2.35 nautical miles off American Samoa. EPA's responses to public comments are enclosed with the permit.

The MPRSA research permit was effective on March 4, 1988. If you have any questions on the permit, please contact Patrick Cotter at (415) 974-0257 or Susan Cox at (415) 974-7432.

Sincerely,

Janet Y. Hashimoto

Janet Hashimoto
Chief
Oceans and Estuaries Section

Enclosures

RESPONSES TO COMMENTS RECEIVED ON THE DRAFT RESEARCH PERMIT OD 88-01 TO DISPOSE OF FISH CANNERY WASTES OFF AMERICAN SAMOA

COMMENTOR 1. Ray Tulafono, Director, Office of Marine and Wildlife Resources, American Samoa Government

Comment 1A. The permit makes false assumptions regarding the accuracy of the current meter, measurement of small distances at sea and positioning of the sample vessel during field work.

Response. These concerns are noted and have been addressed in response to Comment 1D below that deals with revisions to the proposed monitoring program. The question of whether the S-4 Interocean current meter accurately measures the movement of the plume may be a matter of human error rather than the instrument inaccuracy. EPA recommends that the field sampling personnel obtain proper training on the use of this instrument, which is known to be state-of-the-art in terms of oceanographic current measuring devices.

Comment 1B. The permit monitoring program should include measurements of the plume direction, distance traveled and distance from land for at least six hours, as well as water quality measured at regular intervals.

Response. Essentially, this is the goal of the monitoring program. EPA's regulations require that the limiting permissible concentration (40 CFR 227.27) of the waste material be at background levels, after initial mixing (40 CFR 227.29), four hours after disposal has ceased. This concentration is to be attained at the boundary of the disposal site. Consequently, site monitoring will be limited to four hours. If the limiting permissible concentration is exceeded after four hours, the center of the disposal site may have to be moved farther offshore and the diameter of the site may have to be changed.

Comment 1C. Past field sampling has shown that drogues are good indicators of plume direction, not plume speed; sample vessel position is difficult to determine; the vessel may drift more than 100 meters while sampling; sampling at Station 2 may not be in the plume itself; and the plume may move more than 1400 meters downstream in four hours.

Response. Given the past problems and uncertainties with the drogues, EPA has decided to implement a monitoring program that relies on visual identification of the plume to position the sampling vessel. Based upon your comments and those of Star-Kist Foods (Commentor 3 below), EPA has revised the monitoring program to require sampling of the plume at specified times (see Comment 1D and Section 7).

The sample taken at Station 2 will be taken in the plume immediately after being discharged from the disposal vessel. It was never EPA's intention to sample in the center of the 0.2 nautical mile discharge circle. The plume will be followed for up to four hours to determine the concentration at the edge of the disposal site.

Comment 1D. The following modifications are suggested:

1. Drogues should be deployed at three meters below the surface to track the plume,
2. Measure currents at Station 1 only,
3. Station 2 should be located in the plume,
4. Station 3 should be taken 30 minutes after Station 2,
5. Stations 4-7 should be taken at hourly intervals within the plume,
6. The distance between transmittance profiles taken at right angles to the center should be defined, and
7. All samples should be taken in the plume.

Response. EPA has revised the field monitoring program to reflect some of recommendations listed above.

1. Deployment of drogues will not be included in the monitoring program because past experience with drogue tracking has not proved to be accurate and the vessel will now be positioned in the plume by visual observation (see Section 7.1.2).

2. Current measurements will only be taken at Station 1 and Station 7 to provide information on the curent patterns at the disposal site (see Section 7.1.5).

3. The sample taken at Station 2 shall be 1 minute after disposal operations begin, in the center of the plume directly behind the disposal vessel (see Section 7.3.3). A surface marker shall be deployed to mark the plume, and to provide a reference for later sampling stations.

4. The center station (denoted by X) shall be located in the middle of the plume as determined by the Principleal Investigator's visual observation. During the remainder of the sampling cruise, the plume shall be tracked visually and the position of the research vessel shall be plotted every 30 minutes.

5. The distance between peripheral transect sampling stations (i.e., those stations denoted by A, B, C, and D) shall be inside the plume, with the outer station 20 feet inside the edge of the plume, and the inner station (if one is indicated) located approximately one-half the distance between the edge of the plume and the center station (denoted by X).

6. Station 3X, shall be sampled 30 minutes after Station 2X, and Stations 3A and 3B shall be sampled as soon as possible afterwards (see Section 7.1.3.3).

7. Station 4X shall be sampled 60 minutes after Station 2, and Stations 4A and 4B shall be sampled as soon as possible afterwards (see Section 7.1.3.4).

8. Station 5X shall be sampled 120 minutes after Station 2, and Stations 5A, 5B, 5C, and 5D shall be sampled as soon as possible afterwards (see Section 7.1.3.5).

9. Station 6X shall be sampled 180 minutes after Station 2, and Stations 6A, 6B, 6C, and 6D shall be sampled as soon as possible afterwards (see Section 7.1.3.6).

10. Station 7X shall be sampled 240 minutes after Station 2, and Stations 7A, 7B, 7C, and 7D shall be sampled as soon as possible afterwards (see Section 7.1.3.7.).

COMMENTOR 2. Ernest Kosaka, Field Supervisor, Office of Environmental Services, Pacific Islands Office, U.S. Fish and Wildlife Service

Comment 2A. The U.S. Fish and Wildelife Service had no objections to the proposed research permit.

Response. No response necessary.

COMMENTOR 3. Jefferey R. Naumann, Manager, Environmental Engineering, Star-Kist Foods, Inc.

Comment 3A. Increase the permitted maximum concentration levels to reflect the highest parameter attained so far, since the canners have no direct control of these concentrations. The changes in Column 3 of the Table 1 have been requested.

Response. The requested increase in permitted maximum concentrations for DAF Sludge, Precooker Water, and Press Water have been included (see Table 1 and Section 2.4.1).

Comment 3B. Delete the footnote at the bottom of Section 2.4.1 which is the table for the permitted physical and chemical constituents of the three cannery wastes.

Response. Footnote "a" has been modified appropriately, and footnote "b" has been deleted.

Comment 3C. Star-Kist requested that the requirement for testing of the press water and precooker water be deleted, because neither of these two wastes have ever been disposed of under the permit.

Response. Both precooker water and press water were included in Star-Kist's and Van Camp's permit applications and the two waste materials are included in the ocean dumping permit. EPA will require an analysis of all material contained in the ocean dumping

TABLE 1. Comparison of Permit Limits and Requested Changes to the Proposed Limits in Draft Ocean Dumping Research Permit OD 88-01.

Cannery Waste Material	OD 87-01 Limits*	Draft OD 88-01 Limits	% Change From OD 87-01	Star-Kist Requested Limits	% Change From OD 87-01
DAF Sludge					
BOD_5	269,000	269,000	None	337,500	+ 25.5
Total Phosphorus	26,629	2,500	- 90.6	3,390	- 87.3
Oil and Grease	345,000	100,000	- 71.0	151,000	- 56.2
Precooker Water					
Tot. Susp. Sol.	65,000	65,000	None	102,000	+ 56.9
Total Phosphorus	1,160	1,160	None	1,295	+ 11.6
Press Water					
Tot. Susp. Sol.	285,000	285,000	None	441,000	+ 54.7
BOD_5	144,200	144,200	None	213,000	+ 47.7
Total Phosphorus	3,810	3,810	None	11,360	+198.2
Total Nitrogen	18,210	18,210	None	22,000	+ 20.8

* = All limits reported in mg/L.

permit. If these materials are not proposed for disposal, EPA will delete them from the permit and change the waste stream monitoring requirements as needed. Until we receive a formal request from Star-Kist to delete these materials from the application, analysis of each waste stream as defined in the research permit will be required.

Comment 3D. Clarify the requirement to test total solids and total volatile solids, or total suspended solids and total volatile suspended solids.

Response. The tests required have been corrected to include total solids and total volatile solids (see Sections 3.1.2, and 7.2.5).

Comment 3E. Change the time for the submission of monthly reports, vessel logs and the summary report from 30 to 45 days, due to practical problems related to sampling, laboratory analysis and report preparation.

Response. EPA is most concerned about the filing of reports for this permit. Past performance by the permittees has not been acceptable in terms of getting the required reports to EPA, the American Samoa Environmental Protection Agency or other required agencies. Reports on waste stream analyses, field monitoring and summary reports are crucial to the management of this program and the preparation of permits. We have had to remind the permittees of their responsibilities on a number of occasions.

If a 45 day period will allow the permittees to send required reports (with all required test results) to the regulatory agencies on a more reliable schedule, then EPA will extend the time to 45 days (see Sections 3.3.2, 3.3.3, 4.6.1, and 5.2). Failure to meet this new time limit for reports will be considered a permit violation subject to enforcement under the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1401 et seq.). EPA understands that extenuating circumstances may occur during the permit term, and the sentence dealing with these possible situations will remain in the appropriate sections.

Comment 3F. Change the fourth line of Section 5.1 to read "...Monitoring cruises shall be scheduled within the first two weeks of each month, if possible, to allow ehough time for laboratory analyses and report writing in compliance..." This request is based on potential problems with weather and other factors that may force rescheduling at a more convenient time.

Response. This change is acceptable to EPA (see Section 5.1).

Comment 3G. Allow monitoring reports and final summary reports to be submitted 60 days after the end of the preceeding month instead of 30 days.

Response. In the interest of simplifying deadlines for all reports to be submitted to the regulatory agencies, EPA will change the monitoring report submission time from 30 to 45 days. See response to Comment 3E for additional information on this matter.

Comment 3H. Establish dump site monitoring stations based on visual identification of the plume, not by current meter measurements taken at Station 2.

Response. The monitoring program has been changed to allow the Principal Investigator to follow the plume visually (see response to Comment 1D). Current profiles will only be required at Stations 1 and 7, not at Station 2 (see response to Comment 1D).

Comment 3I. Identify the sampling stations in Figure 1 under Section 7.1.2 by numbers and letters.

Response. See response to Comment 1D and changes to Figure 1 under Section 7.1.2 in the permit.

Comment 3J. It is impossible to locate sampling stations at precise distances from the disposal point, because the vessel drifts significantly and station location equipment is not precise enough.

Response. See response to Comment 1D.

Comment 3K. Measure the actual surface dimensions of the plume by noting vessel speed and the time it takes the vessel to travel the length and width of the plume. This could be done two or three times over the period of four hours. Between these measurements, a transect down the axis of the plume could be run and two or three perpendicular transects could be made across the plume to measure dilution and transmissivity.

Response. EPA is concerned with the movement of the plume, the dispersion of the waste material in the ocean, and potential water quality impacts outside the disposal site. Noting the size and shape of the plume over time may be valuable information. However, we believe that measurements at the center of the plume and at stations perpendicular to the axis of the plume at specific time intervals will provide better quantitative information on the dispersion of the plume at the disposal site.

We have revised the field monitoring program by specifying that the station on the axis of the plume be visually identified by the Principal Investigator, and that transmissivity profiles be made on the axis and at specified stations perpendicular to the plume axis. See the response to Comment 1D for more information on the specific locations of the sampling stations.

Comment 3L. The S-4 current meter does not need to be calibrated each time a current reading is made.

Response. Section 7.1.5. has been changed according to this request.

Comment 3M. As mentioned in Comment 3D, clarify whether measurements of total suspended solids and total volatile suspended solids, or total solids and total volatile solids will be required in the field monitoring program.

Response. See response to Comment 3D.

COMMENTOR 4. Pati Faiai, Director, American Samoa Environmental Protection Agency

Comment 4A. The American Samoa Environmental Protection Agency (ASEPA) supports the comments provided by the American Samoa Office of Marine and Wildlife Resources. These comments should be considered in review of the permit.

Response. See the responses to Commentor 2.

Comment 4B. Forward draft copies of any proposed permits to the ASEPA office before they are published for public review.

Response. If this is possible, given the time schedule and other work loads, EPA will send a preliminary copy to ASEPA by overnight delivery.

Other changes reflected in the final OD 88-01 Research Permit:

1. All references to sample stations "." have been deleted and have been identified by "A, B, C, and D."

2. Figure 1. Orientation of Sample Stations, has been modified to correspond with the changes identified in the response to comments.

3. In Section 7.1.6., temperature and salinity have been deleted as parameters to be monitored.

4. Consistent with the changes identified in the response to comments, Section 7.3.6. has been deleted.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

04 MAR 1988

In Reply
Refer To: W-7-1

Jefferey R. Naumann
Manager, Environmental Engineering
Star-Kist Foods, Inc.
180 East Ocean Boulevard
Long Beach, California 90802

Re: Issuance of Ocean Dumping Permit OD 88-01

Dear Mr. Naumann:

After careful consideration of the comments received by EPA, we have revised the draft research permit for ocean disposal of fish cannery wastes generated at the two fish canning plants in American Samoa.

In your review of the enclosed "comment and response" document, you will note that many of your suggestions, as well as those of the American Samoa Government have been incorporated in the final permit. Should you have any questions regarding Ocean Dumping Permit OD 88-01 (enclosed), please contact Patrick Cotter at (415) 974-0257.

Thank you for your prompt comments on the draft permit.

Sincerely,

Harry Seraydarian
Director
Water Management Division

Enclosures

cc: Fred Avers, Van Camp Seafood
Albert Cropley, Star-Kist Samoa
Manley Sarnowski, Samoa Packing

MARINE PROTECTION, RESEARCH AND SANCTUARIES ACT
OCEAN DUMPING PERMIT

PERMIT NUMBER AND TYPE: OD 88-01 Research

EFFECTIVE DATE: March 4, 1988

EXPIRATION DATE: September 4, 1988

REAPPLICATION DATE: July 1, 1988

APPLICANTS:	Star-Kist Samoa, Inc. P.O. Box 368 Pago Pago American Samoa 96799	Samoa Packing Co., Inc. P.O. Box 957 Pago Pago American Samoa 96799
PERMITTEES:	Star-Kist Samoa, Inc. P.O. Box 368 Pago Pago American Samoa 96799	Samoa Packing Co., Inc. P.O. Box 957 Pago Pago American Samoa 96799
WASTES GENERATED AT:	Star-Kist Samoa, Inc. P.O. Box 368 Pago Pago American Samoa 96799	Samoa Packing Co., Inc. P.O. Box 957 Pago Pago American Samoa 96799
WASTE TRANSPORTER:	Azuma Maru, No. 35 Pan Pacific Maritime, Inc. Pago Pago, American Samoa	
PORT OF DEPARTURE:	Pago Pago Harbor, American Samoa	

This Research Permit authorizes the transportation and dumping into ocean waters of certain material as described in the Special Conditions section pursuant to the Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. 1401 et seq.), as amended, (hereinafter referred to as "the Act"), regulations promulgated thereunder, and the terms and conditions set forth below.

A research permit is being issued to determine whether dumping of a substance will unreasonably degrade or endanger human health, welfare or amenities, or the marine environment, ecological systems, or economic potentialities [33 U.S.C. 1412a(1)(B)]. The Environmental Protection Agency (EPA) has determined that the scientific merit of the proposed project outweighs the potential environmental risks or other damage that may result from the dumping [40 CFR 220.3(e)].

1. GENERAL CONDITIONS

1.1. Operation under this Ocean Dumping permit shall conform to all applicable Federal statutes and regulations including, but not limited to, the Act, the Clean Water Act (33 U.S.C. 1251 et seq.) and the Ports and Waterways Safety Act (33 U.S.C. 1221 et seq.)

1.2. All transportation and dumping authorized herein shall be undertaken in a manner consistent with the terms and conditions of this permit. The permittees designated above shall be liable for compliance with all such terms and conditions. The liability of the permittees is set forth in the Special Conditions and they are jointly responsible for compliance with the terms of this permit. The permittees shall be held jointly and severally liable under Section 105 of the Act (33 U.S.C. 1415) in the event of any violation of the permit.

1.3. Under Section 105 of the Act any person who violates any provision of the Act, 40 CFR 220 through 229 issued thereunder, or any term or condition of this permit shall be liable for a civil penalty of not more than $50,000 per day for each violation. Additionally, any knowing violation of the Act, 40 CFR 220 through 229 or the permit may result in a criminal action being brought with penalties of not more than $50,000 or one year in prison, or both. Violations of the Act or the terms and conditions of this permit include but are not limited to:

1.3.1. Transportation to, and dumping at any location other than that authorized by this permit;

1.3.2. Transportation and dumping of any material not identified in, more frequently than, or in excess of that identified in this permit, unless specifically authorized by a written modification hereto;

1.3.3. Failure to conduct permit monitoring as required in Special Conditions 3.1, 4.6 and 5.1; or

1.3.4. Failure to file waste stream and disposal site monitoring reports as required in Special Conditions 3.3, 4.6, 5.2 and 5.3.

1.4. Nothing contained herein shall be deemed to authorize, in any way, the transportation from the United States for the purpose of dumping into the ocean waters, into the territorial sea, or into the contiguous zone, the following material:

1.4.1. Radioactive wastes;

1.4.2. Materials, in whatever form, produced for radiological, chemical, or biological warfare; or

1.4.3. Persistent synthetic or natural materials which may float or remain in suspension in the ocean.

1.5. Nothing contained herein shall be deemed to authorize, in any way, violation of applicable American Samoa Water Quality Standards.

1.6. After notice and opportunity for a hearing, this permit shall be subject to revision, revocation or limitation, in whole or in part, subject only to the provisions of 40 CFR 222.3(b) through (h) and 40 CFR 223.2, as a result of a determination by the Regional Administrator of EPA that:

1.6.1. The cumulative impact of the permittees' dumping activities or the aggregate impact of all dumping activities in the dump site designated in Special Condition 2.2 should be categorized as Impact Category I, as defined in 40 CFR 228.10(c)(1);

1.6.2. There has been a change in circumstances relating to the management of the disposal site designated in Special Condition 2.2;

1.6.3. The dumping authorized by the permit would violate applicable American Samoa Water Quality Standards; or

1.6.4. The dumping authorized can no longer be carried out consistent with the criteria set forth in 40 CFR 227 and 228.

1.7. The permittees shall ensure at all times that facilities, including vessels, are in good working order and operate as efficiently as possible to achieve compliance with the terms and conditions of this permit. During all transportation and loading operations, there shall not be a loss of material to any waterway.

1.8. The permittees shall allow the Regional Administrator of EPA, the Commander of the Fourteenth U.S. Coast Guard District (USCG), the Executive Secretary of the American Samoa Environmental Quality Commission (EQC), and/or their authorized representatives:

1.8.1. To enter into, upon, or through the permittees' premises, vessels, or other premises or vessels under the control of the permittee, where, or in which, a source of material to be dumped is located or in which any records are required to be kept under the terms and conditions of this permit or the Act;

1.8.2. To have access to and copy any records required to be kept under the terms and conditions of this permit or the Act;

1.8.3. To inspect any dumping equipment, navigational equipment, monitoring equipment or monitoring methods required in this permit;

1.8.4. To sample or require that a sample be drawn, under EPA, USCG, or EQC supervision, of any materials discharged or to be discharged; and

1.8.5. To inspect laboratory facilities, data, and quality control records required for compliance with any condition of this permit.

1.9. If material which is regulated by this permit is disposed of, due to an emergency to safeguard life at sea in locations or in a manner not in accordance with the terms of this permit, the permittees shall make a full report, in accordance with the provisions of 18 U.S.C. 1001, within 15 days to the EPA Regional Administrator, the USCG and the EQC or their delegates detailing the conditions of this emergency and the actions taken, including the nature and amount of material disposed.

1.10. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of rights, nor any infringement of Federal, State or local laws or regulations, nor does it obviate the necessity of obtaining State or local assent required by applicable law for the activity authorized.

1.11. This permit does not authorize or approve the construction of any onshore or offshore physical structures or facilities, or, except as authorized by this permit, the undertaking of any work in any navigable waters.

1.12. Unless otherwise provided for herein, all terms used in this permit shall have the meanings assigned to them by the Act or 40 CFR 220 through 229, issued thereunder.

2. SPECIAL CONDITIONS - PERMIT LIMITATIONS

Permit limitations are required to define the length of the permit period, identify the dump site location, describe the waste materials and define maximum permitted limits for each waste material.

2.1. Location of Waste Generator and Permit Term

2.1.1. The material to be dumped shall consist of waste materials resulting from the operation of the permittees' fish canneries at Pago Pago Harbor, American Samoa.

2.1.2. This permit shall expire at midnight on September 4, 1988.

2.2. Location of Disposal Site

Transportation for the purpose of ocean dumping shall terminate at, and waste disposal shall be confined to a circular area with 1.5 nautical mile diameter centered at 14° 22' 11" South latitude by 170° 40' 52" West longitude.

2.3. Description of Material

2.3.1. During the term of this permit, and in accordance with all other terms and conditions of this permit, the permittees are authorized to transport for disposal into ocean waters quantities of waste material that shall not exceed the following amounts:

2.3.1.1. Star-Kist Samoa

Waste Material	Amount
Dissolved Air Floatation (DAF) Sludge	60,000 gallons/day
Precooker Water	100,000 gallons/day
Press Water	40,000 gallons/day
Total Maximum Daily Volume	200,000 gallons/day

2.3.1.2. Samoa Packing Company

Waste Material	Amount
Dissolved Air Floatation (DAF) Sludge	31,400 gallons/day
Precooker Water	13,300 gallons/day
Press Water	12,200 gallons/day
Total Maximum Daily Volume	56,900 gallons/day

2.3.1.3. Total Permitted Waste Material Discharges

Waste Material	Amount
Dissolved Air Floatation (DAF) Sludge	91,400 gallons/day
Precooker Water	113,300 gallons/day
Press Water	52,200 gallons/day
Total Maximum Daily Volume	256,900 gallons/day

2.3.2. The transportation for disposal of floatables, garbage, domestic trash, waste chemicals, and solid waste is prohibited.

2.4. Waste Material Limitations

2.4.1. Permitted Physical and Chemical Constituents

Fish Processing Waste Material	Total Permitted Daily Volume To Be Dumped	Permitted Maximum Concentration Per Constituent	
DAF Sludge[a]	91,400 gal/day	Tot. Sus. Solids	219,000 mg/L
		BOD5	337,500 mg/L
		Total Phosphorus	3,390 mg/L
		Total Nitrogen	15,000 mg/L
		Oil and Grease	151,000 mg/L
Precooker Water	113,300 gal/day	Tot. Sus. Solids	102,000 mg/L
		BOD5	82,100 mg/L
		Total Phosphorus	1,295 mg/L
		Total Nitrogen	9,930 mg/L
Press Water	52,200 gal/day	Tot. Sus. Solids	441,000 mg/L
		BOD5	213,000 mg/L
		Total Phosphorus	11,360 mg/L
		Total Nitrogen	22,000 mg/L

a = Concentrations listed for each of the waste materials are based on historical information and data provided by the applicants.

2.4.2. The pH range for all waste materials shall not be less than 5.5 pH units nor greater than 7.0 pH units.

2.4.3. The Permitted Maximum Concentration and pH limits, listed above, shall not be exceeded at any time during the term of this permit.

3. SPECIAL CONDITIONS - ANALYSIS OF WASTE MATERIAL

Compliance with the permitted maximum concentrations defined in Special Condition 2.4 shall be determined by monthly monitoring of each of the permittees' waste streams before the material is loaded into the disposal vessel. Analysis of each waste stream (including DAF sludge, press water and precooker water) is required because these materials have been identified by the permittees for disposal. Additional analyses of fish processing wastes and reporting requirements are defined in this section. Sampling dates shall be scheduled within the first two weeks of the month to allow enough time for laboratory analysis and report writing in compliance with Special Condition 3.3.

3.1. Analyses of Waste Material

3.1.1. Concentrations of the constituents in Special Condition 2.4 shall be determined by pooling three replicate samples, taken on the day that sampling is scheduled, to be used as a composite sample.

3.1.2. In addition to Special Condition 3.1.1, the permittees shall measure the following parameters by pooling three replicate samples from each waste material to obtain a composite sample:

Parameter	Detection Limits
Bulk Density	0 01 g/mL
pH	0.1 pH units
Total Solids	10 mg/L
Total Volatile Solids	10 mg/L
BOD5	10 mg/L
Total Phosphorus	1 mg/L
Total Nitrogen	1 mg/L
Ammonia	1 mg/L
Oil and Grease	5 mg/L
Aluminum	0.1 mg/L
Chromium	0.1 mg/L
Nickel	0.1 mg/L
Copper	0.1 mg/L
Lead	0.1 mg/L
Cadmium	0.1 mg/L
Mercury	0.01 mg/L
Total Petroleum Hydrocarbons[a]	50 ug/L

a = Measured by infrared spectrophotometry (i.e., EPA Method 418.1)

3.1.3. All waste material sampling procedures, analytical protocols, and quality control/quality assurance procedures shall be performed in accordance with guidelines specified by EPA Region 9. The following references shall be used by the permittees where appropriate:

3.1.3.1. 40 CFR 136, EPA Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act;

3.1.3.2. Tetra Tech, Inc. 1985. Summary of U.S.. EPA-approved methods, standard methods and other guidance for 301(h) monitoring variables. Final program document prepared for the Marine Operations Division, Office of Marine and Estuarine Protection, U.S. Environmental Protection Agency. EPA Contract No. 68-01-693. Tetra Tech, Inc., Bellevue, Wa. 18pp.; and

3.1.3.3. Environmental Protection Agency. 1987. Quality assurance and quality control for 301(h) monitoring programs: Guidance on field and Laboratory Methods. Office of Marine and Estuarine Protection, Washington, D.C. EPA 430/9-86-004.

3.1.4. Any waste material constituents listed in Special Condition 3.1.2 that are shown to be consistently nondetectable after the first three sampling periods, may be eliminated from further analytical tests. Before elimination of the parameter is permitted, the permittee shall obtain written approval from EPA Region 9 and the EQC.

3.2. Analytical Laboratory

3.2.1. Within 30 days of the effective date of this permit, the name and address of the designated laboratory or laboratories and a description of all analytical test procedures and quality assurance/quality control procedures, including detection limits being used, shall be provided for EPA Region 9 approval.

3.2.2. Any potential variation or change in the designated laboratory or analytical procedures shall be reported, in writing, for EPA Region 9 approval.

3.2.3. EPA Region 9 may require analyses of quality control samples by any laboratories employed for purposes of compliance with Special Condition 3.1 and Appendix A. Upon request, the permittee shall provide EPA Region 9 with the analytical results from such samples.

3.2.4. A complete analysis of constituents, required in Special Condition 3.1, shall be made by the permittee and reported to EPA Region 9 and the EQC whenever there is a change in the quality of the waste, process configuration, or waste treatment. If deemed necessary by EPA Region 9, bioassays shall be required in addition to constituent analyses.

3.3. Reporting

3.3.1. Each permittee shall provide EPA Region 9 and the EQC with a report for each month of the permit containing:

3.3.1.1. Daily volumes, reported in gallons/day, of each waste material removed from the permittees' facilities;

3.3.1.2. Monthly waste material analyses demonstrating that the waste materials being dumped comply with the permitted limits of constituents listed in Special Condition 2.4;

3.3.1.3. Monthly analyses of the additional parameters listed in Special Condition 3.1,

3.3.1.4. The monthly amount of coagulant polymer and alum added to the waste streams; and

3.3.2. Such reports shall be submitted to EPA Region 9 and the EQC within 45 days of the end of the preceding month for which they were prepared. The reports shall be submitted within this 45 day period unless extenuating circumstances, communicated to EPA Region 9 and the EQC in writing and approved by the agencies, necessitate a delay in reporting.

3.3.3. A summary report of all monthly reports listed in Special Condition 3.3.1, including a statistical analysis of parameter variability and a detailed discussion of the results of the monthly reports, shall be submitted by each permittee to EPA and the EQC 45 days after the permit expires.

3.3.4. Upon detection of a violation of any permit limitations, the permittee shall send a written notification of this violation to EPA Region 9 and the EQC within five working days and a detailed written report of the violation shall be sent to the agencies within 15 working days.

4. SPECIAL CONDITIONS - VESSEL OPERATIONS

Specification of vessel operations is required to limit dumping activities to the dump site identified in Special Condition 2.2 and to record all activities that occur at sea.

4.1. Posting of the Permit

This permit, or a true copy thereof, shall be placed in a conspicuous place on any vessel which will be used for the transportation and dumping authorized by this permit. If the dumping vessel is an unmanned barge, the permit or true copy of the permit shall be transferred to the towing vessel.

4.2. Vessel Identification

Every vessel engaged in the transportation of wastes for ocean disposal shall have its name and number painted in letters and numbers at least four inches high on both sides of the vessel. The name and number shall be kept distinctly legible at all times, and a vessel without such markings shall not be used to transport or dump waste material.

4.3. Disposal Rate and Vessel Speed

The disposal vessel/barge shall discharge the material authorized by this permit beginning near the center of the disposal site identified in Special Condition 2.2. The disposal operation shall be conducted at a rate of 140 gallons per minute per knot, not to exceed 1400 gallons per minute at a maximum speed of 10 knots, while moving in a circle with a radius less than or equal to 0.2 nautical miles.

4.4. Navigational Equipment

The permittees shall employ an onboard electronic positioning system (see reference below) to accurately fix the position of the disposal vessel during all dumping operations. This system is subject to advanced approval by EPA Region 9 and the U.S. Coast Guard Liaison Office (CGLO) Pago Pago 15 days after the effective date of the permit.

Environmental Protection Agency. 1987. Evaluation of survey positioning methods for nearshore marine and estuarine waters. Office of Marine and Estuarine Protection, Washington, D.C. EPA 430/9-86-003.

4.5. Permitted Times for Disposal Operations

Dumping operations shall be restricted to daylight hours, unless an emergency exists and written authorization is obtained from the CGLO Pago Pago or the EQC prior to departure. EPA Region 9 shall be notified no later than five working days after the emergency in a written report of the situation.

4.6. Reporting of the Ocean Dumping Vessel Operations

4.6.1. The waste transporter shall maintain and the permittees shall submit copies of a monthly transportation and dumping logbook, including plots of all relevant information requested in Special Condition 4.6.2, to EPA Region 9, CGLO Pago Pago, and the EQC within 45 days of the end of the preceeding month for which they were prepared. The report shall be submitted within this 45 day period unless extenuating circumstances, communicated to EPA Region 9 and the EQC in a writing and approved by the agencies, necessitates a delay in reporting.

4.6.2. The logbook shall contain the following information for each waste disposal trip:

4.6.2.1. Permit number, date and serial trip number;

4.6.2.2. The time that loading of the vessel commences and ceases;

4.6.2.3. The time and navigational position that dumping commences and ceases;

4.6.2.4. A record of vessel speed and direction every 15 minutes during each dumping operation at the disposal site, and a plot on a navigational chart of the vessel's course;

4.6.2.5. Observe, note and plot the time and position of any floatable material;

4.6.2.6. Observe, note and plot the wind speed and direction every 30 minutes;

4.6.2.7. Observe and note wave height at the beginning and end of the disposal trip;

4.6.2.8. Observe, note and plot any unusual occurrences during the disposal trip; and

4.6.2.9. Observe, note and plot any other information relevant to the assessment of environmental impacts as a result of dumping activities.

5. SPECIAL CONDITIONS - DUMPSITE MONITORING

The monitoring program for disposal of wastes in the ocean must document short- and long-term effects of disposed wastes on the receiving waters, biota, and beneficial uses of the receiving waters; and determine compliance with permit terms and conditions. Once an adequate background database is established and predictable relationships among biological and physical variables are demonstrated, it may be appropriate to revise the monitoring program. Revisions may be made under the direction of EPA Region 9 at any time during the permit term, in compliance with 40 CFR 223.2 and 223.3. This may include a reduction or increase in the number of parameters to be monitored, the frequency of monitoring, the location of sample stations, or the number and size of samples to be collected.

5.1. Monitoring Program

The permittees are required to implement the EPA Region 9-specified monitoring program defined in Appendix A as a means of determining the environmental impacts of ocean dumping of the waste. Monitoring cruises shall be scheduled within the first two weeks of each month, if possible, to allow enough time for laboratory analysis and report writing in compliance with Special Condition 5.2. Sampling days may be scheduled from Monday through Sunday. The permittees shall notify the EQC at least 24 hours prior to any scheduled monitoring activities.

5.2. Monitoring Reports

Monthly site monitoring reports shall be submitted to EPA Region 9 and the EQC within 45 days of the end of the preceeding month for which the samples were taken. The reports shall be submitted within this 45-day time period unless extenuating circumstances, communicated to EPA Region 9 and the EQC in a writing and approved by the agencies, necessitate a delay in reporting.

The reports shall include: neatly compiled raw data for all sample analyses, a quality assurance/quality control package for the data, statistical analysis of sample variability between stations and within samples for appropriate parameters, and a discussion of the results.

5.3. Final Summary Report

5.3.1. A report summarizing all of the data collected during the waste material and dump site monitoring programs shall be submitted to EPA Region 9, the EQC, the National Marine Fisheries Service and the U.S. Fish and Wildlife Service 45 days after the permit expires.

5.3.2. At a minimum, the summary report shall contain the following sections:

5.3.2.1. Introduction (including a brief summary of previous ocean disposal activities),

5.3.2.2. Location of Study Sites,

5.3.2.3. Materials and Methods,

5.3.2.4. Results and Discussion (including comparisons and contrasts with previous data related to disposal of fish processing wastes off American Samoa),

5.3.2.5. Conclusions,

5.3.2.6. References,

5.3.2.7. Raw Data Appendix, and

5.3.2.8. Quality Assurance/Quality Control Information.

5.4. Quality Assurance/Quality Control

5.4.1. All appropriate phases of the monitoring, sampling, and laboratory analytical procedures shall adhere to the EPA Region 9-specified protocols and references listed in Special Condition 3.1.4.

5.4.2. The qualifications of the on-site Principal Investigator in charge of the field monitoring operation at the dump site shall be submitted to EPA Region 9 and the EQC for approval prior to the initial monitoring cruise. Notification of any change in this individual shall be submitted EPA Region 9 and EQC- at least 7 days before the cruise is scheduled.

6. SPECIAL CONDITIONS - NOTICE TO REGULATORY AGENCIES

6.1. Notice of Sailing to U.S. Coast Guard

6.1.1. The waste transporter shall provide telephone notification of sailing to CGLO Pago Pago at 633-2299 or the EQC at 633-2304 during working hours (7:00 a.m. to 3:30 p.m.) no later than 24 hours prior to the estimated time of departure for the dump site designated in Special Condition 2.2.

6.1.2. The waste transporter shall immediately notify CGLO Pago Pago or the EQC upon any changes in the estimated time of departure greater than two hours.

6.1.3. Surveillance of activities at the dump site designated in Special Condition 2.2, may be accomplished by unannounced aerial overflights, a USCG shiprider and/or an EQC shiprider who will be on board the towing/conveyance vessel for the entire voyage. Within two hours after receipt of the initial notification the waste transporter will be advised as to whether or not a shiprider will be assigned to the

6.1.4. The following information shall be provided to CGLO Pago Pago or the EQC in the above-mentioned notification of sailing:

6.1.4.1. The time of departure,

6.1.4.2. Estimated time of arrival at the dump site,

6.1.4.3. Estimated time of departure from the dump site, and

6.1.4.4. Estimated time of return to port.

6.2. Reports and Correspondence

6.2.1. Two copies of all reports and related correspondence required by General Condition 1.8, Special Conditions 3.1, 3.2, 3.3, 4.4, 4.5, 4.6, 5.2, 5.3, 5.4, and all other materials, including applications shall be submitted to EPA Region 9 at the following address:

Office of Pacific Island and Native American Programs (E-4)
U.S. Environmental Protection Agency, Region 9
215 Fremont Street
San Francisco, California 94105
Telephone (415) 974-7432

6.2.2. Two copies of all reports required by General Condition 1.8 and Special Conditions 4.4, 4.5, 4.6 and 6.1 sent to the U.S. Coast Guard shall be submitted to the following address:

Commanding Officer
U.S. Coast Guard Liaison Office
P.O. Box 249
Pago Pago, American Samoa 96799
Telephone 633-2299

6.2.3. Three copies of all reports required by General Condition 1.8 and Special Conditions 3.1, 3.2, 3.3, 4.4, 4.5, 4.6, 5.1, 5.2, 5.3 and 6.1 sent to the American Samoa Environmental Quality Commission shall be submitted to the following address:

Executive Secretary
American Samoa Environmental Quality Commission
Office of the Governor
Pago Pago, American Samoa 96799
Telephone 633-2304

6.2.4. One copy of the summary report required by Special Condition 5.3 shall be sent to the U.S. Fish and Wildlife Service and the National Marine Fisheries Service at the following addresses:

Project Leader
Office of Environmental Services
U.S. Fish and Wildlife Service
300 Ala Moana Boulevard
P.O. Box 50167
Honolulu, Hawaii 96850

Western Pacific Program Officer
National Marine Fisheries Service
2570 Dole Street
Honolulu, Hawaii 96822-2396

Signed this 4th day of March, 1988.

For the Regional Administrator

Harry Seraydarian
Director
Water Management Division

APPENDIX A

STAR-KIST SAMOA AND SAMOA PACKING COMPANY
OCEAN DUMPING RESEARCH PERMIT OD 88-01
JOINT OCEAN DUMP SITE MONITORING PLAN

7. MONITORING OF RECEIVING WATER

Movement of the waste plume shall be tracked during each monitoring cruise by the use of a transmissometer. The results of the first monitoring report will be evaluated by EPA Region 9 to determine whether Sections 7.1 and/or 7.3 need to be refined. The evaluation will be based on documented sampling results and recommendations of the permittees.

7.1. Location of Water Sampling Stations

7.1.1. On each sampling cruise, the latitude and longitude of all sampling stations shall be determined using appropriate navigational equipment.

7.1.2. The Principal Investigator shall ensure that the transmissivity profiles and samples, taken at the location marked "X" (Figure 1) for each station, are positioned as close as possible to the middle of the discharge plume. The middle of the plume shall be determined visually by the Principal Investigator each time a profile or sample is to be taken. Other transmissivity profiles, taken at the locations marked "A, B, C, and D" (Figure 1) for each station, shall be taken relative to the visually identified plume.

7.1.3. The following sample stations shall be occupied on each sampling cruise (see Figure 1):

7.1.3.1. Station 1X - 1.85 kilometers (1.0 nautical mile) up current of Station 2 to be used as the control station,

7.1.3.2. Station 2X - Center of the dumping operation,

7.1.3.3. Station 3 - Station 3X shall be sampled 30 minutes after Station 2X, with a transmittance profile at the visual plume centerline. Stations 3A and 3B shall be sampled as soon as possible after 3X, with the 3A profile 90° and 3B profile 270° relative to Station 3X. Both 3A and 3B shall be within the plume, 20 feet from the edge.

7.1.3.4. Station 4 - Station 4X shall be sampled 60 minutes after Station 2X, with a transmittance profile at the visual plume centerline. Stations 4A and 4B shall be sampled in the identical manner as Stations 3A and 3B, described above.

7.1.3.5. Station 5 - Station 5X shall be sampled 120 minutes after Station 2X, with a transmittance profile at the visual plume centerline. Stations 5A and 5B shall be sampled in the identical manner as Stations 3A and 3B, described above. Stations 5C and 5D shall be sampled as soon as possible after 5A and 5B, aligned perpendicular with 5X, 5A, and 5B inside the plume and located approximately one-half the distance between 5A (and 5B on the opposite side of the centerline), and 5X.

7.1.3.6. Station 6 - Station 6X shall be sampled 180 minutes after Station 2X, with a transmittance profile at the visual plume centerline. Stations 6A, 6B, 6C, and 6D shall be sampled in the identical manner as Stations 5A through 5D, described above.

7.1.3.7. Station 7 - Station 7X shall be sampled 240 minutes after Station 2X, with a transmittance profile at the visual plume centerline. Stations 7A, 7B, 7C, and 7D shall be sampled in the identical manner as Stations 5A through 5D, described above.

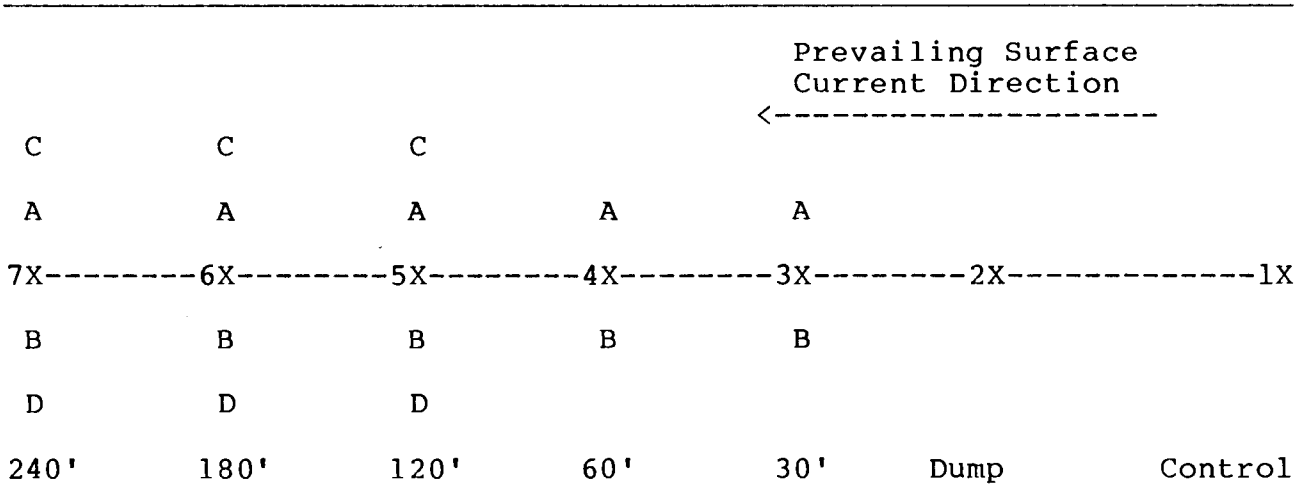

Figure 1. Orientation of Sample Stations (Top View) Relative to the Visual Plume Centerline at the Time of Sampling.

7.1.4. A transmittance profile shall be taken to 10 meter depth at Stations 3, 4, 5, and 6 with measurements recorded at depths of 2, 3, 6, 8, and 10 meters. Transmittance profiles shall be measured to the 20 meter depth at Station 1, 2, and 7. Exact sampling locations of each of the profiles to the 90° or 270° of the centerline at each station will be determined by using the "best professional judgement" of the Principal Investigator on the monitoring vessel.

7.1.5. Current speed and direction shall be determined at Stations 1X and 7X by using an appropriate profiling current meter on each sampling cruise before sampling commences. Current speed and direction will be measured and recorded at the following depths at Stations 1X and 7X: 3, 6, 8, 10, 12, 14, 16, 18, and 20 meters.

7.1.6. On each sampling cruise a water column profile to a depth of 20 meters of the following parameters shall be made at Stations 1X, 2X, and 7X using appropriate water column profiling equipment:

Parameter	Detection Limits
Dissolved Oxygen	0.1 mg/L
pH	0.1 pH units
Transmissivity	0.1 % transmittance
Secchi disk depth	Not Applicable

7.1.6.1 The profiles required in Section 7.1.6 shall be made to a depth of 20 meters with measurements at 1, 3, 6, 10, and 20 meters.

7.1.6.2. Water column profiling equipment shall be calibrated before and after each cruise to ensure high quality data collection.

7.1.7. Surface water conditions shall be recorded at all stations including:

7.1.7.1. Wind speed and direction;

7.1.7.2. Wave height; and

7.1.7.3. Observations of waste, color [e.g., Forel-Ule (FU) color scale], odor, floating materials, grease, oil, scum, foam or other floating materials attributed to fish wastes.

7.2. Water Column Characteristics to Be Measured

7.2.1. The limited permissible concentration (LPC) of the liquid phase of the waste material shall not be exceeded at the disposal site boundary four hours after disposal operations cease. The LPC is that concentration of the material which, after allowance for initial mixing as defined at 40 CFR 227.29, does not exceed applicable American Samoa Oceanic Water Quality Standards. EPA Region 9 and the EQC will evaluate the LPC based on EPA's Ocean Dumping Regulations and the water quality values obtained for the stations sampled during the tenure of this permit.

7.2.2. The following standards apply specifically to American Samoa oceanic water:

Parameter	Median not to exceed given value	Not to exceed given value 10% of the time	Not to exceed given value 2% of the time
Turbidity (NTU)	0.20	0.29	0.36
Total Phosphorus (ug P/L)	11.00	23.00	35.00
Total Nitrogen (ug N/L)	115.00	180.00	230.00
Chlorophyll a (ug/L)	0.18	0.40	0.65
Light Penetration Depth (feet)	150*	132*	120*
Dissolved Oxygen	Not less than 80% of saturation or less than 5.5 mg/L. If the natural level of dissolved oxygen is less than 5.5 mg/L, then the natural level shall become the standard.		
pH	The range shall be 6.5 to 8.6 pH units and within 0.2 pH units of that which would occur naturally.		

*To exceed the given value 50%, 90% and 98% of the time respectively.

7.2.3. Water column sampling depths for discrete samples collected at Stations 1X, 2X, and 7X (see Figure 1) shall include:

7.2.3.1. 1 meter,

7.2.3.2. 3 meters,

7.2.3.3. 10 meters, and

7.2.3.4. 20 meters below the surface.

7.2.4. Water samples shall be obtained using self-closing 3-liter water sample device at each depth listed in 7.2.3.

7.2.5. Water column parameters analyzed from discrete samples taken at the depths listed in 7.2.3 shall include:

Parameters	Detection Limits
Total Solids	0.1 mg/L
Total Volatile Solids	0.1 mg/L
Total Phosphorus[a]	0.001 mg/L
Total Nitrogen[a]	0.001 mg/L
Ammonia[a]	0.001 mg/L

a = samples should be acidified to pH <2 with sulfuric acid and refrigerated a 4° C until analysis.

7.2.6. If waste stream analyses, described in Special Condition 3.1, detect significantly high levels of constituents that may adversely affect marine water quality, EPA Region 9 may require that those constituents be added to the list of water column parameters in 7.2.5 above.

7.3. Frequency of Water Sampling Cruises and Station Sampling

7.3.1. Water samples and appropriate probe readings shall be collected when dumping operations are scheduled. Each station listed under Section 7.1 shall be sampled once each month. These samples shall be used to characterize the receiving waters at the disposal site.

7.3.2. The sample at Station 1X shall be taken prior to dumping activities.

7.3.3. Station 2X shall be sampled at a point within the plume one minute after discharge operations begin.

7.3.4. Stations 3X through 6X shall be sampled consecutively at the time intervals indicated in Sections 7.1.3.3 through 7.1.3.6. to allow efficient sampling of the discharge plume.

7.3.5 Station 7X shall be sampled at a point within the plume four hours after discharge operations begin.

8. MONITORING OF BIOLOGICIAL COMMUNITIES

8.1. Pelagic Resources

8.1.1. All sightings of fish, sea turtles, sea birds, or cetaceans near the disposal site shall be recorded including:

8.1.1.1. Time, location and bearing;

8.1.1.2. Species name(s); and

8.1.1.3. Approximate number of individuals.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

In Reply
Refer To: W-7

Jeffrey R. Naumann
Manager, Environmental Engineering
Star-Kist Foods, Inc.
180 East Ocean Boulevard
Long Beach, California 90802-4797

RE: Application for Renewal of Ocean Dumping Permit OD 87-01

Dear Mr. Naumann:

EPA Region 9 received Star-Kist Foods' application for renewal of Ocean Dumping permit OD 87-01 on January 4, 1988. After review of the information provided, EPA Region 9 has determined that the application is not complete and requires additional data on waste characterization. This letter is intended to confirm a telephone conversation between you and Patrick Cotter on January 5, 1988 during which the following issues were discussed related to your application.

1. 40 CFR 221.1(c) states that an "(a)dequate physical and chemical description of material to be dumped, including results of tests necessary to apply the Criteria..." shall be contained in the written application. Data for dissolved air flotation sludge, press water and precooker water should be presented that was required in Ocean Dumping permits OD 86-01 and OD 87-01 (Sections 3.1.1 and 3.1.2). This information should include monthly and summary tables (including permitted limits, means, standard deviations and variance for each parameter) for data obtained as required under Ocean Dumping permits OD 86-01 and OD 87-01 (Sections 3.3.1 and 3.3.3). Summary data and final monthly reports for OD 87-01 may be omitted from these tables if the information is still being compiled.

2. The amount of waste that the Azuma Maru can carry or is capable of carrying should be clarified. The amounts listed in the Star-Kist application are not the same as those in the Van Camp application.

3. EPA will maintain the permit condition for daylight disposal, with the stipulation that nighttime disposal will be permitted under properly documented and approved emergency conditions.

4. The statement that the information presented in the June 1983 report on ocean disposal of fish waste off American Samoa is sufficient to designate an ocean disposal site (p. 2, section F of the application) is not correct. As part of EPA's policy, environmental impact statements must be prepared in order to designate any ocean disposal site.

5. The disposal vessel will not be authorized to move in concentric circles throughout the disposal site (p. 3). The vessel is being restricted to a 0.2 nautical mile circle for field monitoring purposes (i.e., plume tracking).

As soon as this information is received, we will be able to review your application to determine whether it is complete. As stated at 40 CFR 222.2(b), within 30 days after receipt of a completed application, the Regional Administrator shall publish a notice of such application and a tentative determination with respect to issuance or denial of the permit. Once the tentative determination has been published, the public shall be given a 30-day review period. Upon receipt of your additional information, we will be responsive to Star-Kist Foods application and prepare the necessary documents in a timely manner.

If you have any questions on the additional information requested or the permit application process, you may contact Patrick Cotter at (415) 974-0257.

Sincerely,

Janet Hashimoto

Janet Hashimoto, Chief
Oceans and Estuaries Section

cc: Pati Faiai, American Samoa EQC
Albert Cropley, Star-Kist Samoa
Fred Avers, Van Camp Seafoods
Gordon Stirling, Samoa Packing

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

13 JAN

In Reply
Refer To: W-7-1

Fred H. Avers
Chairman of the Board and
Chief Executive Officer
Van Camp Seafood Company, Inc.
901 Chouteau Avenue
St. Louis, Missouri 63164

RE: Application for Renewal of Ocean Dumping Permit OD 87-01

Dear Mr. Avers:

EPA Region 9 received Van Camp Seafoods' application for renewal of Ocean Dumping permit OD 87-01 on January 4, 1988. After review of the information provided, EPA Region 9 has determined that the application is not complete and requires additional data on waste characterization. This letter is intended to confirm a telephone conversation between Madeline Parks of your staff and Patrick Cotter of my staff on January 5, 1988 during which the following issues were discussed related to your application.

1. The data tables presented in the Van Camp permit application are very useful. However, additional data should have been included to complete the tables. 40 CFR 221.1(c) states that an "(a)dequate physical and chemical description of material to be dumped, including results of tests necessary to apply the Criteria..." shall be contained in the written application. Data for dissolved air flotation sludge, press water and precooker water should be presented that was required in Ocean Dumping permit OD 86-01 (Sections 3.1.1 and 3.1.2). This information should include monthly and summary tables (including permitted limits, means, standard deviations and variance for each parameter) for data obtained as required under the permit (Sections 3.3.1 and 3.3.3). Summary data and final monthly reports for OD 87-01 may be omitted from these tables if the information is still being compiled.

2. The amount of waste that the Azuma Maru can carry or is capable of carrying should be clarified. The amounts listed in the Van Camp application are not the same as those in the Star-Kist application.

3. EPA will maintain the permit condition for daylight disposal, with the stipulation that nighttime disposal will be permitted under properly documented and approved emergency conditions.

4. The statement that the information presented in the June 1983 report on ocean disposal of fish waste off American Samoa is sufficient to designate an ocean disposal site (p. 2, paragraph 4 of the application) is not correct. As part of EPA's policy, environmental impact statements must be prepared in order to designate any ocean disposal site.

5. The disposal vessel will not be authorized to move in concentric circles throughout the disposal site (p. 3). The vessel is being restricted to a 0.2 nautical mile circle for field monitoring purposes (i.e., plume tracking).

6. In all future payments of permit fees, please make the check payable to "U.S. Environmental Protection Agency, Region 9."

7. Please provide an explanation for the high levels of petroleum hydrocarbons (listed in the enclosed tables with the Van Camp application) that have been detected in the waste materials. An explanation concerning the nature of the variability in levels of constituents in press water and precooker water is also necessary.

As soon as this information is received, we will be able to review your application to determine whether it is complete. As stated at 40 CFR 222.2(b), within 30 days after receipt of a completed application, the Regional Administrator shall publish a notice of such application and a tentative determination with respect to issuance or denial of the permit. Once the tentative determination has been published, the public shall be given a 30-day review period. Upon receipt of your additional information, we will be responsive to Van Camp Seafoods application and prepare the necessary documents in a timely manner.

If you have any questions on the additional information requested or the permit application process, you may contact Patrick Cotter at (415) 974-0257.

Sincerely,

Janet Hashimoto

Janet Hashimoto, Chief
Oceans and Estuaries Section

cc: Pati Faiai, American Samoa EQC
Gordon Stirling, Samoa Packing
Jeffrey Nauman, Star-Kist Foods
Albert Cropley, Star-Kist Samoa

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

21 DEC 1987

Charles A. Bakewell
Project Director
Executive Resource Associates, Inc.
Suite 813, One Crystal Park
2011 Crystal Drive
Arlington, VA 22202

Re: Contract No. 68-03-4045, Work Assignment #9

Dear Mr. Bakewell:

Staff of the Oceans and Estuaries Section, EPA Region 9 have reviewed the draft report entitled "Adulterated Fish Wastes Ocean Dumping Operations," dated August 27, 1987, and herewith provide our comments and editorial/technical recommendations for your consideration prior to report finalization.

General Comments

The draft report is well organized and contains valuable information in an appropriate format. Subsequent to the preparation of the draft, EPA Region 9 issued Ocean Dumping Permit 87-01 (research) for the American Samoa fish waste dumping. This permit has several refinements when compared to earlier permits, particularly in the dumpsite monitoring requirements. A copy of the OD 87-01 permit is attached for your review. References to this permit will be made in our specific comments, but generally we would like to see appropriate portions of the permit monitoring plan incorporated in the subject document. Region 9 wishes to make this an options document rather than a single procedure to be used in a fish waste permit monitoring program. In addition, we have recently tabulated all available DAF sludge data from both American Samoa canneries (through the OD 86-01 reporting period ending 7/87) and we include this as an attachment for your information and possible use.

Specific Comments

Pages 1 and 9. The average bulk density for American Samoa DAF sludge is slightly higher than indicated. For all parameters with tabulated values provided in the text, an indication of standard deviation and variance would be useful. Data prior to the second quarter of 1987 must be segregated from the data obtained for OD 86-01.

Pages 2, 26 and 28. More discussion is needed concerning the use of ammonia concentrations versus transmissivity as an analytical tracer for surface plume tracking. On several pages, reference is made to the usefulness of ammonia but a concise discussion is not included. The use of ammonia verses transmissivity should be included in the final report.

Page 4, final paragraph. The last sentence should read "...are related to their high biochemical oxygen demand...."

Page 13, "Dumping Procedure." The quantity of sludge typically dumped in 30 to 60 minutes should be indicated. In American Samoa, the actual maximum amount dumped per vessel load is approximately 24,000 gallons.

Page 15. The reference to coral reefs should be annotated to indicate that no dumpsite will be designated by EPA near coral reef communities.

Page 16. The comparisons of fish waste and sewage sludge are misleading as the wastes are not similar in composition. Excessive phytoplankton growths have not been documented as a result of fish waste disposal in the tropics. The second paragraph discussing sewage sludge dumping should be deleted, and the following paragraph reworded as necessary.

Page 23. The appropriateness of bioassay testing using the Microtox Toxicity Analyzer System for fish waste is questioned. If this system is utilized, it is critical that relative sensitivities be established for a variety of test organisms. The bioassays required in OD 87-01 (attached), are in accordance with currently recommended EPA methods (EPA 600/4-85-013).

Page 24, fourth paragraph. For the citation [40 CFR 228.13(c)], it should be pointed out that section 228.13 provides monitoring guidelines as opposed to requirements.

Page 26. OD 87-01 requires the use of a transmissometer to track movement of the waste plume, and this technique should be considered in the subject document. It is also suggested that wherever ammonia analysis is recommended in the text, the words "ammonia analysis or transmissivity" be substituted.

Page 27. A revised water sampling station array has been incorporated into OD 87-01. This array could be included as a possible alternative method to the more traditional method presented. In other words, both arrays could be discussed.

Page 27. In the last sentence at the page bottom, 10 cm should be changed to 10 m.

We hope that these comments prove helpful and look forward to receiving the finalized document. Please contact Patrick Cotter (415) 974-0257 concerning needs for additional funding to complete the document and the development of a schedule for completion. A secondary contact for the American Samoa fish waste dumping program is James Branch (415) 974-8343.

Sincerely,

Janet Hashimoto

Janet Hashimoto
Chief, Oceans and Estuaries Section

Attachments

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

In Reply
Refer To: W-5-3

1 SEP 1987

SUBJECT: Issuance of a Final Research Ocean Dumping Permit for Disposal of Cannery Wastes from Fish Processing Plants in American Samoa

Dear Interested Party:

The U.S. Environmental Protection Agency (EPA), Region 9 has issued a research permit, No. OD 87-01, to Star-Kist Samoa, Inc. and Samoa Packing Company. The permit has been issued under Section 102 of the Marine Protection, Research and Sanctuaries Act (MPRSA) of 1972 (33 USC 1401 et seq.). The permittees are authorized to dispose of cannery wastes, produced at fish processing plants in Pago Pago, at a ocean disposal site approximately 2.35 nautical miles off American Samoa. EPA's responses to public comments are enclosed with the permit.

The MPRSA research permit was effective on September 2, 1987. If you have any questions on the permit, please contact Patrick Cotter at (415) 974-0257 or Susan Cox at (415) 974-7432.

Sincerely,

Janet Hashimoto

Janet Hashimoto
Acting Chief
Ocean and Estuaries Section

Enclosures

RESPONSE TO COMMENTS ON THE DRAFT RESEARCH PERMIT NUMBER OD 87-01 FOR DISPOSAL OF FISH CANNERY WASTES OFF AMERICAN SAMOA

COMMENTOR 1: Executive Secretary, American Samoa Environmental Quality Commission

Comment 1. Remove grit from the ocean dumping permit and allow American Samoa to regulate disposal of this material through the fish scrap disposal program.

Response. Grit disposal requested by Star-Kist Samoa has been deleted from the permit. Disposal of this material will be regulated by the American Samoa Government under their fish scrap disposal permit program.

Comment 2. The use of drogues in the monitoring program may not give the best results because the drogues have not always followed the movement of the discharge plume from the disposal vessel.

Response. EPA Region 9 significantly altered the monitoring program to address the above concerns. The permittees will now be required to monitor the plume by measuring transmissivity across the plume at selected locations (Appendix A, Section 1.1). Transmissivity profiles will be made at 20m, 50m, 100m, 200, and 1400m across the plume. At each distance the chief scientist shall determine when to make the required number of profiles (Appendix A, Section 1.3), except where expressly defined. The profiles shall be taken to 10m or 20m depending on the location of the station. Drogue tracking has been completely eliminated from the research permit.

It should also be noted that since results of bioassay tests required under Ocean Dumping Permit OD 86-01 were not available, additional bioassays will be required under Appendix A, Section 2.2 of Ocean Dumping Permit OD 87-01.

COMMENTOR 2: Administrator, National Marine Fisheries Service, Western Pacific Program Office

Comment 3. NMFS had no objections to the permit and they wish to continue to receive monitoring reports.

Response. No response necessary.

COMMENTOR 3: Chief, Marine Safety Division, Fourteenth Coast Guard District

Comment 4. USCG Honolulu and the USCG Liaison Officer, American Samoa had no comments on the draft permit.

Response. No response necessary.

COMMENTOR 4: Director, American Samoa Environmental Protection Agency

Comment 5. EPA should reconsider inclusion of grit in the ocean dumping permit.

Response. See response under Comment 1.

Comment 6. Monitoring of the waste disposal plume using drogues may give questionable results.

Response. See response under Comment 2.

Comment 7. EPA should add a provision to include compliance with the Water Quality Act (1987) and the Ports and Waterways Safety Act.

Response. EPA reviewed the Ocean Dumping Regulations and and determined that the permittees would be required to comply with these two acts, as well as all other pertinent Federal statutes and regulations, under 40 CFR 223.1(a). This requirement is defined under General Condition 1.1 in the final version of the permit.

COMMENTOR 5: Field Supervisor, Environmental Services, U.S. Fish and Wildlife Service, Pacific Islands Office

Comment 8. USFWS had no objections to issuance of the permit and they wish to continue to receive monitoring reports.

Response. No response necessary.

COMMENTOR 6: Chairman of the Board, Samoa Packing Company, Inc.

Comment 9. The Samoa Packing application contained incorrect figures for the waste material to be disposed of in the permit. The correct figures are:

Waste Material	Amount
Dissolved Air Floatation (DAF) Sludge	31,400 gallons/day
Precooker Water	13,300 gallons/day
Press Water	12,200 gallons/day
Total Maximum Daily Volume	56,900 gallons/day

Response. EPA corrected these figures according to Samoa Packing Company's request. They are contained in Special Condition 2.3.1.2.

COMMENTOR 7: Manager, Environmental Engineering, Star-Kist Foods, Inc.

Comment 10. Star-Kist Foods requested that General Conditions 1.2.3 and 1.2.4 of the draft permit be deleted.

Response. These sections of the draft permit stipulate that failure to conduct permit monitoring and reporting would constitute a violation of the permit. These General Conditions were intended to bring problems encountered in the previous research permit to the direct attention of the permittees. EPA determined that highlighting of these provisions was necessary to ensure that monitoring and reporting requirements were given proper priority in the permittees' work plans. Consequently, these provisions were not deleted from the final permit (see General Conditions 1.3.3 and 1.3.4).

Comment 11. Increase the detection limits for PCBs from 10 ug/L to 500-1000 ug/L, and increase the detection limits for pesticides from 5 ug/L to 80-200 ug/L. These limits are more appropriate based on the type of waste being discharged.

Response. The detection limits for both PCBs and pesticides were increased to 100 ug/L. If the permittees use protocols specified in the permit (Special Condition 3.1.3), these detection limits will be achievable.

Comment 12. Lengthen the report submission date specified in Special Conditions 3.3.2 and 5.2 from 30 to 45 days because experience has shown that this time period is more practical.

Response. The request to increase reporting deadlines from 30 to 45 days was not approved, because sufficient time is possible if the canneries schedule monitoring cruises and sampling dates within the first two weeks of each month. This should give at least 45 days to test the samples and prepare a report.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

02 SEP 1987

In Reply
Refer To: W-5-3

Jefferey R. Naumann
Manager, Environmental Engineering
Star-Kist Foods, Inc.
180 East Ocean Boulevard
Long Beach, California 90802

RE: Issuance of Ocean Dumping Permit OD 87-01

Dear Mr. Naumann:

After careful consideration of the comments received by EPA, we have revised the draft research permit for ocean disposal of fish cannery wastes generated at the two fish canning plants in American Samoa. These revisions include the following changes:

1. Authority to dispose of grit has been deleted from the permit and will be regulated by the American Samoa Government.

2. Detection limits listed under Special Condition 3.1.2 were adjusted according to approved EPA methods.

3. The request to increase reporting deadlines from 30 to 45 days was not approved, because sufficient time is possible if the canneries schedule monitoring cruises and sampling dates within the first two weeks of each month. This should give at least 45 days to test the samples and prepare a report. It should be noted that final reports for the permit must be sent to each agency no later than 15 days after the permit expires.

4. As a result of comments received and EPA's review of the previous monitoring reports, we significantly revised the monitoring program contained in the draft permit. The new monitoring program is based on transmissivity transects across the discharge plume at specific locations and time intervals.

5. All drogue tracking has been eliminated from the permit.

6. Sampling to 20 meters at selected stations was reinstated because the monitoring reports documented that birds were attracted to disposed material. The presence of disposal material large enough to attract birds, which may have a tendancy to sink beyond the discharge plume, must be documented.

7. Since results of bioassay tests required under Ocean Dumping Permit OD 86-01 were not available, additional bioassays will be required under Appendix A, Section 2.2 of Ocean Dumping Permit OD 87-01.

Detailed responses to each comment received by EPA Region 9 regarding the draft permit will be sent to you as soon as possible. If you have any questions regarding this permit, please contact Patrick Cotter at (415) 974-0257.

Sincerely,

Harry Seraydarian
Director
Water Management Division

Enclosure

cc: Fred Avers, Van Camp Seafood
Albert Cropley, Star-Kist Samoa
Manley Sarnowski, Samoa Packing

MARINE PROTECTION, RESEARCH AND SANCTUARIES ACT
OCEAN DUMPING PERMIT

PERMIT NUMBER AND TYPE: OD 87-01 Research

EFFECTIVE DATE: September 2, 1987

EXPIRATION DATE: March 2, 1988

REAPPLICATION DATE: January 2, 1988

APPLICANTS:	Star-Kist Samoa, Inc. P.O. Box 368 Pago Pago American Samoa 96799	Samoa Packing Co., Inc. P.O. Box 957 Pago Pago American Samoa 96799
PERMITTEES:	Star-Kist Samoa, Inc. P.O. Box 368 Pago Pago American Samoa 96799	Samoa Packing Co., Inc. P.O. Box 957 Pago Pago American Samoa 96799
WASTES GENERATED AT:	Star-Kist Samoa, Inc. P.O. Box 368 Pago Pago American Samoa 96799	Samoa Packing Co., Inc. P.O. Box 957 Pago Pago American Samoa 96799
WASTE TRANSPORTER:	Azuma Maru No. 35 Pan Pacific Maritime, Inc. Pago Pago, American Samoa	
PORT OF DEPARTURE:	Pago Pago Harbor, American Samoa	

This Research Permit authorizes the transportation and dumping into ocean waters of certain material as described in the Special Conditions section pursuant to the Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. 1401 et seq.), as amended, (hereinafter referred to as "the Act"), regulations promulgated thereunder, and the terms and conditions set forth below.

A research permit is being issued to determine whether dumping of a substance will unreasonably degrade or endanger human health, welfare or amenities, or the marine environment, ecological systems, or economic potentialities [33 U.S.C. 1412a(1)(B)]. The Environmental Protection Agency (EPA) has determined that the scientific merit of the proposed project outweighs the potential environmental risks or other damage that may result from the dumping [40 CFR 220.3(e)].

1. GENERAL CONDITIONS

1.1. Operation under this Ocean Dumping permit shall conform to all applicable Federal statutes and regulations including, but not limited to, the Act, the Clean Water Act (33 U.S.C. 1251 et seq.) and the Ports and Waterways Safety Act (33 U.S.C. 1221 et seq.)

1.2. All transportation and dumping authorized herein shall be undertaken in a manner consistent with the terms and conditions of this permit. The permittees designated above shall be liable for compliance with all such terms and conditions. The liability of the permittees is set forth in the Special Conditions and they are jointly responsible for compliance with the terms of this permit. The permittees shall be held jointly and severally liable under Section 105 of the Act (33 U.S.C. 1415) in the event of any violation of the permit.

1.3. Under Section 105 of the Act any person who violates any provision of the Act, 40 CFR 220 through 229 issued thereunder, or any term or condition of this permit shall be liable for a civil penalty of not more than $50,000 per day for each violation. Additionally, any knowing violation of the Act, 40 CFR 220 through 229 or the permit may result in a criminal action being brought with penalties of not more than $50,000 or one year in prison, or both. Violations of the Act or the terms and conditions of this permit include but are not limited to:

1.3.1. Transportation to, and dumping at any location other than that authorized by this permit;

1.3.2. Transportation and dumping of any material not identified in, more frequently than, or in excess of that identified in this permit, unless specifically authorized by a written modification hereto;

1.3.3. Failure to conduct permit monitoring as required in Special Conditions 3.1, 4.6 and 5.1; or

1.3.4. Failure to file waste stream and disposal site monitoring reports as required in Special Conditions 3.3, 4.6, 5.2 and 5.3.

1.4. Nothing contained herein shall be deemed to authorize, in any way, the transportation from the United States for the purpose of dumping into the ocean waters, into the territorial sea, or into the contiguous zone, the following material:

1.4.1. Radioactive wastes;

1.4.2. Materials, in whatever form, produced for radiological, chemical, or biological warfare; or

1.4.3. Persistent synthetic or natural materials which may float or remain in suspension in the ocean.

1.5. Nothing contained herein shall be deemed to authorize, in any way, violation of applicable American Samoa Water Quality Standards.

1.6. After notice and opportunity for a hearing, this permit shall be subject to revision, revocation or limitation, in whole or in part, subject only to the provisions of 40 CFR 222.3(b) through (h) and 40 CFR 223.2, as a result of a determination by the Regional Administrator of EPA that:

1.6.1. The cumulative impact of the permittees' dumping activities or the aggregate impact of all dumping activities in the dump site designated in Special Condition 2.2 should be categorized as Impact Category I, as defined in 40 CFR 228.10(c)(1);

1.6.2. There has been a change in circumstances relating to the management of the disposal site designated in Special Condition 2.2;

1.6.3. The dumping authorized by the permit would violate applicable American Samoa Water Quality Standards; or

1.6.4. The dumping authorized can no longer be carried out consistent with the criteria set forth in 40 CFR 227 and 228.

1.7. The permittees shall ensure at all times that facilities, including vessels, are in good working order and operate as efficiently as possible to achieve compliance with the terms and conditions of this permit. During all transportation and loading operations, there shall not be a loss of material to any waterway.

1.8. The permittees shall allow the Regional Administrator of EPA, the Commander of the Fourteenth U.S. Coast Guard District (USCG), the Executive Secretary of the American Samoa Environmental Quality Commission (EQC), and/or their authorized representatives:

1.8.1. To enter into, upon, or through the permittees' premises, vessels, or other premises or vessels under the control of the permittee, where, or in which, a source of material to be dumped is located or in which any records are required to be kept under the terms and conditions of this permit or the Act;

1.8.2. To have access to and copy any records required to be kept under the terms and conditions of this permit or the Act;

1.8.3. To inspect any dumping equipment, navigational equipment, monitoring equipment or monitoring methods required in this permit;

1.8.4. To sample or require that a sample be drawn, under EPA, USCG, or EQC supervision, of any materials discharged or to be discharged; and

1.8.5. To inspect laboratory facilities, data, and quality control records required for compliance with any condition of this permit.

1.9. If material which is regulated by this permit is disposed of, due to an emergency to safeguard life at sea in locations or in a manner not in accordance with the terms of this permit, the permittees shall make a full report, in accordance with the provisions of 18 U.S.C. 1001, within 15 days to the EPA Regional Administrator, the USCG and the EQC or their delegates detailing the conditions of this emergency and the actions taken, including the nature and amount of material disposed.

1.10. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of rights, nor any infringement of Federal, State or local laws or regulations, nor does it obviate the necessity of obtaining State or local assent required by applicable law for the activity authorized.

1.11. This permit does not authorize or approve the construction of any onshore or offshore physical structures or facilities, or, except as authorized by this permit, the undertaking of any work in any navigable waters.

1.12. Unless otherwise provided for herein, all terms used in this permit shall have the meanings assigned to them by the Act or 40 CFR 220 through 229, issued thereunder.

2. SPECIAL CONDITIONS - PERMIT LIMITATIONS

Permit limitations are required to define the length of the permit period, identify the dump site location, describe the waste materials and define maximum permitted limits for each waste material.

2.1. Location of Waste Generator and Permit Term

2.1.1. The material to be dumped shall consist of waste materials resulting from the operation of the permittees' fish canneries at Pago Pago Harbor, American Samoa.

2.1.2. This permit shall expire at midnight on March 2, 1988.

2.2. Location of Disposal Site

Transportation for the purpose of ocean dumping shall terminate at, and waste disposal shall be confined to a circular area with 1.5 nautical mile diameter centered at 14° 22' 11" South latitude by 170° 40' 52" West longitude.

2.3. Description of Material

2.3.1. During the term of this permit, and in accordance with all other terms and conditions of this permit, the permittees are authorized to transport for disposal into ocean waters quantities of waste material that shall not exceed the following amounts:

2.3.1.1. Star-Kist Samoa

Waste Material	Amount
Dissolved Air Floatation (DAF) Sludge	60,000 gallons/day
Precooker Water	100,000 gallons/day
Press Water	40,000 gallons/day
Total Maximum Daily Volume	200,000 gallons/day

2.3.1.2. Samoa Packing Company

Waste Material	Amount
Dissolved Air Floatation (DAF) Sludge	31,400 gallons/day
Precooker Water	13,300 gallons/day
Press Water	12,200 gallons/day
Total Maximum Daily Volume	56,900 gallons/day

2.3.1.3. Total Permitted Waste Material Discharges

Waste Material	Amount
Dissolved Air Floatation (DAF) Sludge	91,400 gallons/day
Precooker Water	113,300 gallons/day
Press Water	52,200 gallons/day
Total Maximum Daily Volume	256,900 gallons/day

2.3.2. The transportation for disposal of floatables, garbage, domestic trash, waste chemicals, and solid waste is prohibited.

2.4. Waste Material Limitations

2.4.1. Permitted Physical and Chemical Constituents

Fish Processing Waste Material	Total Permitted Daily Volume To Be Dumped	Permitted Maximum Concentration Per Constituent	
DAF Sludge[a]	91,400 gal/day	Tot. Sus. Solids	219,000 mg/L
		BOD_5	269,000 mg/L
		Total Phosphorus	26,629 mg/L
		Total Nitrogen	44,854 mg/L
		Oil and Grease	345,000 mg/L
Precooker Water[a]	113,300 gal/day	Tot. Sus. Solids	65,000 mg/L
		BOD_5	82,100 mg/L
		Total Phosphorus	1,160 mg/L
		Total Nitrogen	9,930 mg/L
Press Water[a]	52,200 gal/day	Tot. Sus. Solids	285,000 mg/L
		BOD_5	144,200 mg/L
		Total Phosphorus	3,810 mg/L
		Total Nitrogen	18,210 mg/L

a = Maximum Permitted Concentrations are assumed to be greatest if the vessel contains waste material only from the Star-Kist Samoa plant. Concentrations listed for each of the waste materials were provided by Star-Kist Samoa.

2.4.2. The pH range for all waste materials shall not be less than 5.5 pH units nor greater than 7.0 pH units.

2.4.3. The Permitted Maximum Concentration and pH limits, listed above, shall not be exceeded at any time during the term of this permit.

3. SPECIAL CONDITIONS - ANALYSIS OF WASTE MATERIAL

Compliance with the permitted maximum concentrations defined in Special Condition 2.4 shall be determined by monthly monitoring of each of the permittees' waste streams before the material is loaded into the disposal vessel. Additional analyses of fish processing wastes and reporting requirements are defined in this section. Sampling dates shall be scheduled within the first two weeks of the month to allow enough time for laboratory analysis and report writing in compliance with Special Condition 3.3.

3.1. Analyses of Waste Material

3.1.1. Concentrations of the constituents in Special Condition 2.4 shall be determined by pooling three replicate samples, taken on the day that sampling is scheduled, to be used as a composite sample.

3.1.2. In addition to Special Condition 3.1.1, the permittees shall measure the following parameters by pooling three replicate samples from each waste material to obtain a composite sample:

Parameter	Detection Limits
Bulk Density	0.01 g/mL
pH	0.1 pH units
Total Suspended Solids	10 mg/L
Total Volatile Solids	10 mg/L
BOD_5	10 mg/L
Total Phosphorus	1 mg/L
Total Nitrogen	1 mg/L
Ammonia	1 mg/L
Oil and Grease	5 mg/L
Aluminum	0.1 mg/L
Chromium	0.1 mg/L
Nickel	0.1 mg/L
Copper	0.1 mg/L
Lead	0.1 mg/L
Cadmium	0.1 mg/L
Mercury	0.01 mg/L
Total Petroleum Hydrocarbons[a]	50 ug/L
Total Pesticides	100 ug/L
Total PCBs	100 ug/L

a = Measured by infrared spectrophotometry (i.e., EPA Method 418.1)

3.1.3. All waste material sampling procedures, analytical protocols, and quality control/quality assurance procedures shall be performed in accordance with guidelines specified by EPA Region 9. The following references shall be used by the permittees where appropriate:

3.1.3.1. 40 CFR 136, EPA Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act;

3.1.3.2. Tetra Tech, Inc. 1985. Summary of U.S. EPA-approved methods, standard methods and other guidance for 301(h) monitoring variables. Final program document prepared for the Marine Operations Division, Office of Marine and Estuarine Protection, U.S. Environmental Protection Agency. EPA Contract No. 68-01-693. Tetra Tech, Inc., Bellevue, Wa. 18pp.; and

3.1.3.3. Environmental Protection Agency. 1987. Quality assurance and quality control for 301(h) monitoring programs: Guidance on field and Laboratory Methods. Office of Marine and Estuarine Protection, Washington, D.C. EPA 430/9-86-004.

3.1.4. Any waste material constituents listed in Special Condition 3.1.2 that are shown to be consistently nondetectable after the first three sampling periods, may be eliminated from further analytical tests. Before elimination of the parameter is permitted, the permittee shall obtain written approval from EPA Region 9 and the EQC.

3.2. Analytical Laboratory

3.2.1. Within 30 days of the effective date of this permit, the name and address of the designated laboratory or laboratories and a description of all analytical test procedures and quality assurance/quality control procedures, including detection limits being used, shall be provided for EPA Region 9 approval.

3.2.2. Any potential variation or change in the designated laboratory or analytical procedures shall be reported, in writing, for EPA Region 9 approval.

3.2.3. EPA Region 9 may require analyses of quality control samples by any laboratories employed for purposes of compliance with Special Condition 3.1 and Appendix A. Upon request, the permittee shall provide EPA Region 9 with the analytical results from such samples.

3.2.4. A complete analysis of constituents, required in Special Condition 3.1, shall be made by the permittee and reported to EPA Region 9 and the EQC whenever there is a change in the quality of the waste, process configuration, or waste treatment. If deemed necessary by EPA Region 9, bioassays shall be required in addition to constituent analyses.

3.3. Reporting

3.3.1. Each permittee shall provide EPA Region 9 and the EQC with a report for each month of the permit containing:

3.3.1.1. Daily volumes, reported in gallons/day, of each waste material removed from the permittees' facilities;

3.3.1.2. Monthly waste material analyses demonstrating that the waste materials being dumped comply with the permitted limits of constituents listed in Special Condition 2.4;

3.3.1.3. Monthly analyses of the additional parameters listed in Special Condition 3.1,

3.3.1.4. The monthly amount of coagulant polymer and alum added to the waste streams; and

3.3.2. Such reports shall be submitted to EPA Region 9 and the EQC within 30 days of the end of the preceding month for which they were prepared. The reports shall be submitted within this 30 day period unless extenuating circumstances, communicated to EPA Region 9 and the EQC in writing and approved by the agencies, necessitate a delay in reporting.

3.3.3. A summary report of all monthly reports listed in Special Condition 3.3.1, including a statistical analysis of parameter variability and a detailed discussion of the results of the monthly reports, shall be submitted by each permittee to EPA and the EQC 15 days after the permit expires.

3.3.4. Upon detection of a violation of any permit limitations, the permittee shall send a written notification of this violation to EPA Region 9 and the EQC within five working days and a detailed written report of the violation shall be sent to the agencies within 15 working days.

4. SPECIAL CONDITIONS - VESSEL OPERATIONS

Specification of vessel operations is required to limit dumping activities to the dump site identified in Special Condition 2.2 and to record all activities that occur at sea.

4.1. Posting of the Permit

This permit, or a true copy thereof, shall be placed in a conspicuous place on any vessel which will be used for the transportation and dumping authorized by this permit. If the dumping vessel is an unmanned barge, the permit or true copy of the permit shall be transferred to the towing vessel.

4.2. Vessel Identification

Every vessel engaged in the transportation of wastes for ocean disposal shall have its name and number painted in letters and numbers at least four inches high on both sides of the vessel. The name and number shall be kept distinctly legible at all times, and a vessel without such markings shall not be used to transport or dump waste material.

4.3. Disposal Rate and Vessel Speed

The disposal vessel/barge shall discharge the material authorized by this permit beginning near the center of the disposal site identified in Special Condition 2.2. The disposal operation shall be conducted at a rate of 140 gallons per minute per knot, not to exceed 1400 gallons per minute at a maximum speed of 10 knots, while moving in a circle with a radius less than or equal to 0.2 nautical miles.

4.4. Navigational Equipment

The permittees shall employ an onboard electronic positioning system (see reference below) to accurately fix the position of the disposal vessel during all dumping operations. This system is subject to advanced approval by EPA Region 9 and the U.S. Coast Guard Liaison Office (CGLO) Pago Pago 15 days after the effective date of the permit.

Environmental Protection Agency. 1987. Evaluation of survey positioning methods for nearshore marine and estuarine waters. Office of Marine and Estuarine Protection, Washington, D.C. EPA 430/9-86-003.

4.5. Permitted Times for Disposal Operations

Dumping operations shall be restricted to daylight hours, unless an emergency exists and written authorization is obtained from the CGLO Pago Pago or the EQC prior to departure. EPA Region 9 shall be notified no later than five working days after the emergency in a written report of the situation.

4.6. Reporting of the Ocean Dumping Vessel Operations

4.6.1. The waste transporter shall maintain and the permittees shall submit copies of a monthly transportation and dumping logbook, including plots of all relevant information requested in Special Condition 4.6.2, to EPA Region 9, CGLO Pago Pago, and the EQC within 30 days of the end of the preceeding month for which they were prepared. The report shall be submitted within this 30 day period unless

extenuating circumstances, communicated to EPA Region 9 and the EQC in a writing and approved by the agencies, necessitates a delay in reporting.

4.6.2. The logbook shall contain the following information for each waste disposal trip:

4.6.2.1. Permit number, date and serial trip number;

4.6.2.2. The time that loading of the vessel commences and ceases;

4.6.2.3. The time and navigational position that dumping commences and ceases;

4.6.2.4. A record of vessel speed and direction every 15 minutes during each dumping operation at the disposal site, and a plot on a navigational chart of the vessel's course;

4.6.2.5. Observe, note and plot the time and position of any floatable material;

4.6.2.6. Observe, note and plot the wind speed and direction every 30 minutes;

4.6.2.7. Observe and note wave height at the beginning and end of the disposal trip;

4.6.2.8. Observe, note and plot any unusual occurrences during the disposal trip; and

4.6.2.9. Observe, note and plot any other information relevant to the assessment of environmental impacts as a result of dumping activities.

5. SPECIAL CONDITIONS - DUMPSITE MONITORING

The monitoring program for disposal of wastes in the ocean must document short- and long-term effects of disposed wastes on the receiving waters, biota, and beneficial uses of the receiving waters; and determine compliance with permit terms and conditions. Once an adequate background database is established and predictable relationships among biological and physical variables are demonstrated, it may be appropriate to revise the monitoring program. Revisions may be made under the direction of EPA Region 9 at any time during the permit term, in compliance with 40 CFR 223.2 and 223.3. This may include a reduction or increase in the number or parameters to be monitored, the frequency of monitoring, the location of sample stations, or the number and size of samples to be collected.

5.1. Monitoring Program

The permittees are required to implement the EPA Region 9-specified monitoring program defined in Appendix A as a means of determining the environmental impacts of ocean dumping of the waste. Monitoring cruises shall be scheduled within the first two weeks of each month to allow enough time for laboratory analysis and report writing in compliance with Special Condition 5.2. Sampling days shall only be scheduled from Monday through Friday. The permittees shall notify the EQC at least 24 hours prior to any scheduled monitoring activities.

5.2. Monitoring Reports

Monthly site monitoring reports shall be submitted to EPA Region 9 and the EQC within 30 days of the end of the preceeding month for which the samples were taken. The reports shall be submitted within this 30-day time period unless extenuating circumstances, communicated to EPA Region 9 and the EQC in a writing and approved by the agencies, necessitate a delay in reporting.

The reports shall include: neatly compiled raw data for all sample analyses, a quality assurance/quality control package for the data, statistical analysis of sample variability between stations and within samples for appropriate parameters, and a discussion of the results.

5.3. Final Summary Report

5.3.1. A report summarizing all of the data collected during the waste material and dump site monitoring programs shall be submitted to EPA Region 9, the EQC and the U.S. Fish and Wildlife Service 15 days after the permit expires.

5.3.2. At a minimum, the summary report shall contain the following sections:

5.3.2.1. Introduction (including a brief summary of previous ocean disposal activities),

5.3.2.2. Location of Study Sites,

5.3.2.3. Materials and Methods,

5.3.2.4. Results and Discussion (including comparisons and contrasts with previous data related to disposal of fish processing wastes off American Samoa),

5.3.2.5. Conclusions,

5.3.2.6. References,

5.3.2.7. Raw Data Appendix, and

5.3.2.8. Quality Assurance/Quality Control Information.

5.4. Quality Assurance/Quality Control

All appropriate phases of the monitoring, sampling, and laboratory analytical procedures shall adhere to the EPA Region 9-specified protocols and references listed in Special Condition 3.1.4.

6. SPECIAL CONDITIONS - NOTICE TO REGULATORY AGENCIES

6.1. Notice of Sailing to U.S. Coast Guard

6.1.1. The waste transporter shall provide telephone notification of sailing to CGLO Pago Pago at 633-2299 or the EQC at 633-2304 during working hours (7:00 a.m. to 3:30 p.m.) no later than 24 hours prior to the estimated time of departure for the dump site designated in Special Condition 2.2.

6.1.2. The waste transporter shall immediately notify CGLO Pago Pago or the EQC upon any changes in the estimated time of departure greater than two hours.

6.1.3. Surveillance of activities at the dump site designated in Special Condition 2.2, may be accomplished by unannounced aerial overflights, a USCG shiprider and/or an EQC shiprider who will be on board the towing/conveyance vessel for the entire voyage. Within two hours after receipt of the initial notification the waste transporter will be advised as to whether or not a shiprider will be assigned to the

6.1.4. The following information shall be provided to CGLO Pago Pago or the EQC in the above-mentioned notification of sailing:

6.1.4.1. The time of departure,

6.1.4.2. Estimated time of arrival at the dump site,

6.1.4.3. Estimated time of departure from the dump site, and

6.1.4.4. Estimated time of return to port.

6.2. Reports and Correspondence

6.2.1. Three copies of all reports and related correspondence required by General Condition 1.8, Special Conditions 3.1, 3.2, 3.3, 4.4, 4.5, 4.6, 5.2, 5.3, and all other materials, including applications shall be submitted to EPA Region 9 at the following address:

Office of Territorial Programs (W-1-1)
U.S. Environmental Protection Agency, Region 9
215 Fremont Street
San Francisco, California 94105
Telephone (415) 974-7432

6.2.2. Two copies of all reports required by General Condition 1.8 and Special Conditions 4.4, 4.5, 4.6 and 6.1 sent to the U.S. Coast Guard shall be submitted to the following address:

Commanding Officer
U.S. Coast Guard Liaison Office
P.O. Box 249
Pago Pago
American Samoa 96799
Telephone 633-2299

6.2.3. Three copies of all reports required by General Condition 1.8 and Special Conditions 3.1, 3.2, 3.3, 4.4, 4.5, 4.6, 5.1, 5.2, 5.3 and 6.1 sent to the American Samoa Environmental Quality Commission shall be submitted to the following address:

Executive Secretary
American Samoa Environmental Quality Commission
Office of the Governor
Pago Pago
American Samoa 96799
Telephone 633-2682

6.2.4. One copy of the summary report required by Special Condition 5.3 shall be sent to the U.S. Fish and Wildlife Service at the following address:

Project Leader
Office of Environmental Services
U.S. Fish and Wildlife Service
300 Ala Moana Boulevard
P.O. Box 50167
Honolulu, Hawaii 96850

Signed this 2 day of September, 1987.

For the Regional Administrator

Harry Seraydarian
Director
Water Management Division

APPENDIX A

STAR-KIST SAMOA AND SAMOA PACKING COMPANY
OCEAN DUMPING RESEARCH PERMIT OD 87-01
JOINT OCEAN DUMP SITE MONITORING PLAN

1. MONITORING OF RECEIVING WATER

Movement of the waste plume shall be tracked during each monitoring cruise by the use of a transmissometer. The results of the first monitoring report will be evaluated by EPA Region 9 to determine whether Sections 1.1 and/or 1.3 need to be refined. The evaluation will be based on documented sampling results and recommendations of the permittees.

1.1. Location of Water Sampling Stations

1.1.1. On each sampling cruise, the latitude and longitude of all sampling stations shall be determined using appropriate navigational equipment.

1.1.2. The following sample stations shall be occupied on each sampling cruise (see Figure 1.1):

1.1.2.1. Station 1 - 1.85 Km (1.0 nautical miles) up current of Station 2 to be used as the control station,

1.1.2.2. Station 2 - Center of the dumping operation,

1.1.2.3. Station 3 - The area 20 meters downstream from the discharge point, as determined by the current meter measurments at Station 2, with two (2) transmittance profiles[a] 90° relative to the visual plume centerline, one (1) profile at the centerline, and two (2) profiles 270° relative to the visual plume centerline.

1.1.2.4. Station 4 - The area 50 meters downstream from the discharge point, as determined by the current meter measurements at Station 2, with two (2) transmittance profiles 90° relative to the visual plume centerline, one (1) profile at the centerline, and two (2) profiles 270° relative to the visual plume centerline.

1.1.2.5. Station 5 - The area 100 meters downstream from the discharge point, as determined by the current meter measurments at Station 2, with three (3) transmittance profiles 90° relative to the visual plume centerline, one (1) profile at the centerline, and three (3) profiles 270° relative to the visual plume centerline.

1.1.2.6. Station 6 - The area 200 meters downstream from the discharge point, as determined by the current meter measurements at station 2, with three (3) transmittance profiles 90° relative to the visual plume centerline, one (1) profile at the centerline, and three (3) profiles 270° relative to the visual plume centerline.

1.1.2.7. Station 7 - The area 1400 meters downstream from the discharge point, as determined by the current meter measurements at station 2, with four (4) transmittance profiles 90° relative to the visual plume centerline, one (1) profile at the centerline, and four (4) profiles 270° relative to the visual plume centerline.

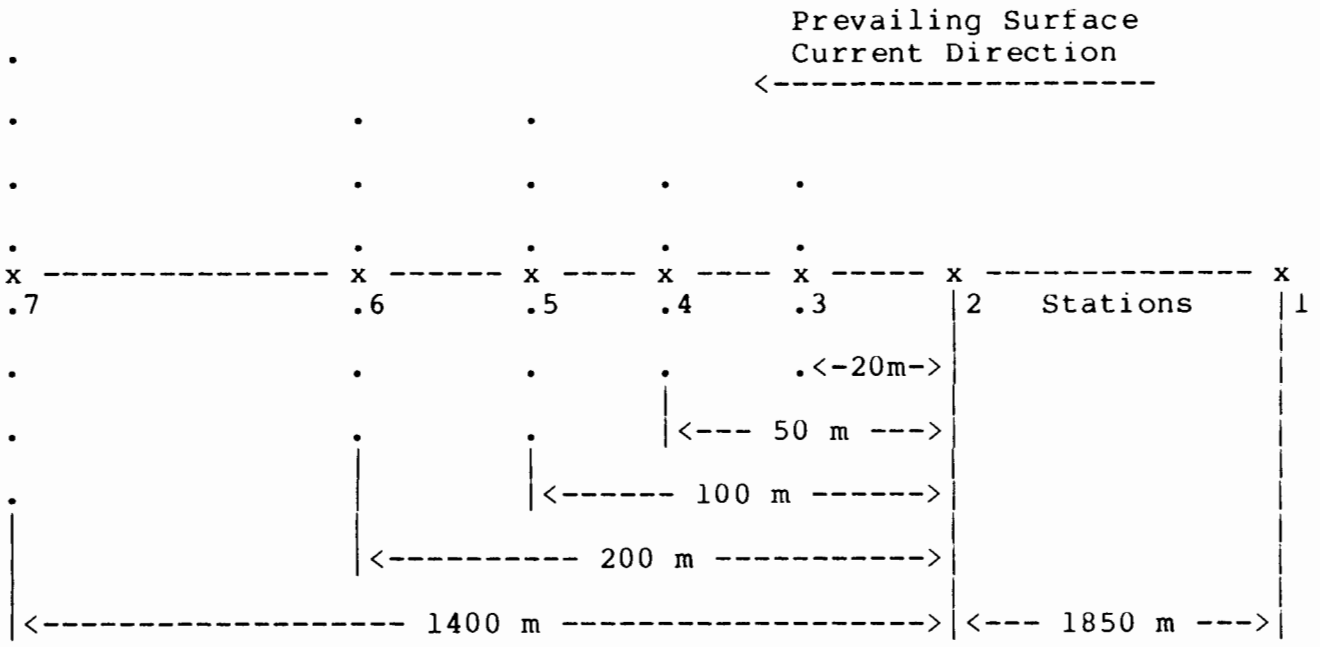

Figure 1. Orientation of Sample Stations (Top View) Relative to the Prevailing Surface Current at the Time of Sampling.

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a = Transmittance profiles to 10 meter depth at stations 3, 4, 5, and 6 with measurements recorded at depths of 2, 3, 6, 8, and 10 meters. Transmittance profile shall be measured to the 20 meter depth at station 1, 2, and 7 (see 1.2.3.). Exact locations and time of sampling of each of the profiles to the right or left of the centerline at each station will be determined by using the "best professional judgement" of the chief scientist on the monitoring vessel.

1.1.3. Current speed and direction shall be determined at Stations 1, 2, and 7 by using an appropriate profiling current meter on each sampling cruise before sampling commences. Current speed and direction will be measured and recorded at the following depths at stations 1, 2, and 7: 3, 6, 8, 10, 12, 14, 16, 18, and 20 meters. The profiling current meters should be calibrated for a minimum of two (2) minutes at each depth before any measurements are recorded. This information will be used to locate sample stations defined in 1.1.2.

1.1.4. Prior to dumping, on each sampling cruise a water column profile to a depth of 20 meters of the following parameters shall be made at Stations 1, 2, and 7 using appropriate water column profiling equipment:

Parameter	Detection Limits
Temperature	0.1 °C
Salinity	0.1 °/oo
Dissolved Oxygen	0.1 mg/L
pH	0.1 pH units
Transmissivity	0.1 % transmittance
Secchi disk depth	Not Applicable

1.1.4.1 The profiles required in Section 1.1.4 shall be made to a depth of 20 meters with measurements at 1, 3, 6, 10, and 20 meters.

1.1.4.2. Water column profiling equipment shall be calibrated before and after each survey to ensure high quality data collection.

1.1.5. Surface water conditions shall be recorded at all stations including:

1.1.5.1. Wind speed and direction;

1.1.5.2. Wave height; and

1.1.5.3. Observations of waste, color [e.g., Forel-Ule (FU) color scale], odor, floating materials, grease, oil, scum, foam or other floating materials attributed to fish wastes.

1.2. Water Column Characteristics to Be Measured

1.2.1. The limited permissible concentration (LPC) of the liquid phase of the waste material shall not be exceeded at the disposal site boundary four hours after disposal operations cease. The LPC is that concentration of the material which, after allowance for initial mixing as defined at 40 CFR 227.29, does not exceed applicable American Samoa Oceanic

Water Quality Standards. EPA Region 9 and the EQC will evaluate the LPC based on EPA's Ocean Dumping Regulations and the water quality values obtained for the stations sampled during the tenure of this permit.

1.2.2. The following standards apply specifically to American Samoa oceanic water:

Parameter	Median not to exceed given value	Not to exceed given value 10% of the time	Not to exceed given value 2% of the time
Turbidity (NTU)	0.20	0.29	0.36
Total Phosphorus (ug P/L)	11.00	23.00	35.00
Total Nitrogen (ug N/L)	115.00	180.00	230.00
Chlorophyll a (ug/L)	0.18	0.40	0.65
Light Penetration Depth (feet)	150*	132*	120*
Dissolved Oxygen	Not less than 80% of saturation or less than 5.5 mg/L. If the natural level of dissolved oxygen is less than 5.5 mg/L, then the natural level shall become the standard.		
pH	The range shall be 6.5 to 8.6 pH units and within 0.2 pH units of that which would occur naturally.		

*To exceed the given value 50%, 90% and 98% of the time respectively.

1.2.3. Water column sampling depths for discrete samples collected at stations 1, 2 and 7 shall include:

1.2.3.1. 1 meter depth below the surface,

1.2.3.2. 3 meters depth,

1.2.3.3. 10 meter depth, and

1.2.3.4. 20 meter depth.

1.2.4. Water samples shall be obtained using self-closing 3-liter water sample device at each depth listed in 1.2.3.

1.2.5. Water column parameters analyzed from discrete samples taken at the depths listed in 1.3.3 shall include:

Parameters	Detection Limits
Total Suspended Solids	0.1 mg/L
Total Volatile Solids	0.1 mg/L
Total Phosphorus[a]	0.001 mg/L
Total Nitrogen[a]	0.001 mg/L
Ammonia[a]	0.001 mg/L

a = samples should be acidified to pH <2 with sulfuric acid and refrigerated a 4° C until analysis.

1.2.6. If waste stream analyses, described in Special Condition 3.1, detect significantly high levels of constituents that may adversely affect marine water quality, EPA Region 9 may require that those constituents be added to the list of water column parameters in 1.3.5 above.

1.3. Frequency of Water Sampling Cruises and Station Sampling

1.3.1. Water samples and appropriate probe readings shall be collected when dumping operations are scheduled. Each station listed under Section 1.1 shall be sampled once each month. These samples shall be used to characterize the receiving waters at the disposal site.

1.3.2. The sample at Station 1 shall be taken prior to dumping activities.

1.3.3. Station 2 shall be sampled at a point within the plume immediately after discharge operations begin.

1.3.4. Stations 3 through 6 shall be sampled consecutively at intervals determined on-site by the chief scientist to allow efficient sampling of the discharge plume.

1.3.5 Station 7 shall be sampled at a point within the plume four hours after discharge operations cease.

1.3.6. The time of sampling and the triangulated position of each station shall be determined before each sample is taken.

2. MONITORING OF BIOLOGICIAL COMMUNITIES

2.1. Pelagic Resources

2.1.1. All sightings of fish, sea turtles, sea birds, or cetaceans near the disposal site shall be recorded including:

2.1.1.1. Time, location and bearing;

2.1.1.2. Species name(s); and

2.1.1.3. Approximate number of individuals.

2.2. Bioassay Study

2.2.1. Additional bioassay studies over those required in OD 86-01 will be required for research permit OD 87-01. Since the results of the bioassays, required in Section 2.2 of the monitoring program for OD 86-01, were not completed by the time of issuance of research permit OD 87-01, the tests listed below shall be performed to determine disposal material toxicity.

2.2.2. Acute toxicity tests of the DAF sludge from each of the permittee's facilities shall be performed on representative samples taken during the first, third and fifth months. These tests will be used to determine the toxic variability of the waste materials and to document potential environmental impacts at the dump site.

2.2.3. On the same day that DAF sludge samples are taken, one sample from the disposal vessel's hold shall be taken and a bioassay test shall be conducted on that material. On the sample day, each permittee shall determine and report the percentage that their DAF sludge constitutes in the barge load. These tests and data shall be used to assess the relative toxicity of the waste material being discharged into the ocean at the disposal site.

2.2.4. The test species shall include:

2.2.4.1. Planktonic copepod (Acartia sp.), or an isopod (Eurydice caudata) to be determined by the permittee and approved by EPA Region 9;

2.2.4.2. Mysid shrimp (Acanthomysis sculpta); and

2.2.4.3. California killifish (Fundulus parvipinnis).

2.2.5. The tests (96 hour LC50, mg/L) shall be performed in accordance with Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms (Third Edition), EPA 600/4-85-013, March 1985.

2.2.6. Reports on the results of the bioassay tests may be submitted independent of the required monthly monitoring reports as specified in Special Condition 5.2, if necessary. Bioassay test results shall be submitted no later than 60 days after the month that samples were taken to perform the required bioassays.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

5 AUG 1987

In Reply
Refer To: W-5-3

MEMORANDUM

SUBJECT: Notice of Completed Application and Tentative Decision to Issue a Joint Research Ocean Dumping Permit to Star-Kist Samoa and Samoa Packing Company

FROM: Loretta Barsamian, Chief
Wetlands, Oceans and Estuaries Branch

TO: Roanald DeCesare, Director
Marine Operations Division
Office of Marine and Estuarine Protection

The U.S. Environmental Protection Agency (EPA), Region 9, has determined that Star-Kist Samoa and Samoa Packing have submitted completed applications and we have prepared a draft joint research permit for them under Section 102 of the Marine Protection, Research and Sanctuaries Act. This permit would authorize the companies to dispose of fish processing wastes from their canneries into the Pacific Ocean off American Samoa. We have determined that the scientific merit of the proposed project outweighs the potential environmental risks or other damage that may result from the dumping of fish processing wastes.

Information gathered during the term of this research permit and previous information gathered under ocean dumping permit OD 86-01 will be used to determine whether dumping of fish waste on a more permanent basis would unreasonably degrade or endanger human health, welfare or amenities; or the marine environment, ecological systems, or economic potentialities. The permittees will be required to conduct a revised EPA Region 9-approved site monitoring program, including laboratory analyses and possible bioassays.

EPA Region 9 has developed the attached documents to support the tentative determination:

1. The public notice of the Agency's action,

2. A fact sheet that describes the rationale behind the Agency's decision, and

3. The draft joint research permit which includes permitting terms and conditions.

If you have comments on the permit, please submit your concerns in writing to Patrick Cotter (W-5-3).

Attachments

cc: Seth Ausebel. EPA Region 2

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

05 AUG 1987

In Reply
Refer To W-5-3

Martin Byhower
American Cetacean Society
1628 Armour Lane
Redondo Beach, California 90278

RE: Tentative Decision to Issue a Joint Research Ocean Dumping Permit to Star-Kist Samoa and Samoa Packing Company

Dear Mr. Byhower:

The U.S. Environmental Protection Agency (EPA), Region 9, has prepared a draft joint research permit under Section 102 of the Marine Protection, Research and Sanctuaries Act for Star-Kist Samoa, Inc. and Samoa Packing, Inc. This permit would authorize the companies to dispose of fish processing wastes from their canneries into the Pacific Ocean off American Samoa. We have determined that the scientific merit of the proposed project outweighs the potential environmental risks or other damage that may result from the dumping of fish processing wastes.

Information gathered during the term of this research permit and previous information gathered under ocean dumping permit OD 86-01 will be used to determine whether dumping of fish waste on a more permanent basis would unreasonably degrade or endanger human health, welfare or amenities; or the marine environment, ecological systems, or economic potentialities. The permittees will be required to conduct a revised EPA Region 9-approved site monitoring program, including laboratory analyses and possible bioassays.

If you have information or comments on the enclosed permit, please submit your concerns in writing to the EPA address above, Attn: Patrick Cotter (W-5-3).

Sincerely,

Loretta Barsamian, Chief
Wetlands, Oceans and Estuaries Branch
Water Management Division

Enclosure

Ms. Jacquline Miller
Acting Associate Director
University of Hawaii
Environmental Center
2550 Campus Road
Honolulu, Hawaii 96822

Mr. Trent Orr
Natural Resources Defense Council
25 Kearny Street
San Francisco, California 94123

Dr. James Parrish
Hawaii Cooperative Fisheries
Research Unit
2528 The Mall
University of Hawaii
Honolulu, Hawaii 96822

Mr. John M. Ravnik
Seafarers International Union
of North America
350 Fremont Street
San Francisco, California 94105

Dr. Neal Shapiro
Environmental Resources Policy
The Cousteau Society
8440 Santa Monica Boulevard
Los Angeles, Califorina 90069

Mr. Ronald A. Zumbrun
President
Pacific Legal Foundation
555 Capital Mall, Suite 350
Sacramento, California 95814

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

05 AUG 1987

In Reply
Refer To: W-5-3

Albert E. Cropley
President and General Manager
Star-Kist Samoa Inc.
P.O. Box 368
Pago Pago, American Samoa 96799

RE: Notice of Completed Application and Tentative Decision to Issue a Joint Research Ocean Dumping Permit to Star-Kist Samoa and Samoa Packing Company

Dear Mr. Cropley:

The U.S. Environmental Protection Agency (EPA), Region 9, has determined that Star-Kist Samoa's application is complete and we have prepared a draft joint research permit under Section 102 of the Marine Protection, Research and Sanctuaries Act for Star-Kist Samoa, Inc. and Samoa Packing, Inc. This permit would authorize the companies to dispose of fish processing wastes from their canneries into the Pacific Ocean off American Samoa. We have determined that the scientific merit of the proposed project outweighs the potential environmental risks or other damage that may result from the dumping of fish processing wastes.

Information gathered during the term of this research permit and previous information gathered under ocean dumping permit OD 86-01 will be used to determine whether dumping of fish waste on a more permanent basis would unreasonably degrade or endanger human health, welfare or amenities; or the marine environment, ecological systems, or economic potentialities. The permittees will be required to conduct a revised EPA Region 9-approved site monitoring program, including laboratory analyses and possible bioassays.

EPA Region 9 has developed the following documents to support the tentative determination:

1. The public notice of the Agency's action,

2. A fact sheet that describes the rationale behind the Agency's decision, and

3. The draft joint research permit which includes permitting terms and conditions.

If you have information or comments on the above matter, please submit your concerns in writing to the EPA address above, Attn: Patrick Cotter (W-5-3).

Sincerely,

Loretta Barsamian

Loretta Barsamian, Chief
Wetlands, Oceans and Estuaries Branch
Water Management Division

Enclosures

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

In Reply
Refer To: W-5-3

Manley Sarnowsky
Plant Manager
Samoa Packing Company, Inc.
P.O. Box 957
Pago Pago, American Samoa 96799

RE: Notice of Completed Application and Tentative Decision to Issue a Joint Research Ocean Dumping Permit to Star-Kist Samoa and Samoa Packing Company

Dear Mr. Sarnowsky:

The U.S. Environmental Protection Agency (EPA), Region 9, has determined that Samoa Packing's application is complete and we have prepared a draft joint research permit under Section 102 of the Marine Protection, Research and Sanctuaries Act for Star-Kist Samoa, Inc. and Samoa Packing, Inc. This permit would authorize the companies to dispose of fish processing wastes from their canneries into the Pacific Ocean off American Samoa. We have determined that the scientific merit of the proposed project outweighs the potential environmental risks or other damage that may result from the dumping of fish processing wastes.

Information gathered during the term of this research permit and previous information gathered under ocean dumping permit OD 86-01 will be used to determine whether dumping of fish waste on a more permanent basis would unreasonably degrade or endanger human health, welfare or amenities; or the marine environment, ecological systems, or economic potentialities. The permittees will be required to conduct a revised EPA Region 9-approved site monitoring program, including laboratory analyses and possible bioassays.

EPA Region 9 has developed the following documents to support the tentative determination:

1. The public notice of the Agency's action,

2. A fact sheet that describes the rationale behind the Agency's decision, and

3. The draft joint research permit which includes permitting terms and conditions.

If you have information or comments on the above matter, please submit your concerns in writing to the EPA address above, Attn: Patrick Cotter (W-5-3).

Sincerely,

Loretta Barsamian

Loretta Barsamian, Chief
Wetlands, Oceans and Estuaries Branch
Water Management Division

Enclosures

Identical letters to those sent to Mr. Sarnowsky and Mr. Copley were sent to the following addressees:

Mr. Frank Hackmann
Associate Counsel
Ralston Purina Company
Checkerboard Square
St. Louis, Missouri 63134

Mr. Jefferey R. Naumann
Manager, Environmental Engineering
Star-Kist Foods, Inc.
180 East Ocean Boulevard
Long Beach, California 90802

Ms. Nancy Boone
Director, Office of Territorial Liaison
Office of Territorial and International Affairs
Department of the Interior
Washington, D.C. 20460

Mr. J. David Clem
Chief, Shellfish Sanitation Branch (HFF-334)
U.S. Food and Drug Administration, Room 3029
200 C Street, S.W.
Washington, D.C. 20204

Chief, Sanctuary Program Division
National Oceanic and Atmospheric
Administration
2001 Wisconsin Avenue, N.W.
Washington, D.C. 20235

Colonel F. W. Wanner
District Engineer
Department of the Army
U.S. Army Engineer District, Honolulu
Building 230
Fort Shafter, Hawaii 96858-5440
ATTN: Operations Branch

Mr. Ernest Kosaka
Project Leader
Office of Environmental Services
U.S. Fish and Wildlife Service
300 Ala Moana Boulevard, Room 6307
P.O. Box 50167
Honolulu, Hawaii 96850

Dr. John Naughton
Acting Administrator
National Marine Fisheries Service
Southwest Region
Western Pacific Program Office
2570 Dole Street
Honolulu, Hawaii 96822-2396

RADM A. P. Manning
Commander, 14th Coast Guard District
Federal Building
300 Ala Moana Boulevard
Honolulu, Hawaii 96850-4982

Captain T. Woods
Chief, Marine Safety Division
14th Coast Guard District
300 Ala Moana Boulevard, Room 9141
P.O. Box 50229
Honolulu, Hawaii 96850

Mr. Pati Faiai
Executive Secretary
American Samoa Environmental
Quality Commission
Office of the Governor
Pago Pago, American Samoa 96799

Lt. John Holmes
U.S. Coast Guard Liason Office
P.O. Box 249
Pago Pago, American Samoa 96799

Mr. Raymond Tulafono
Director
Office of Marine and
Wildlife Resources
P.O. Box 3730
Pago Pago, American Samoa 96799

Director
Office of Coastal Zone Management
Office of the Governor
American Samoa Government
Pago Pago, American Samoa 96799

MARINE PROTECTION, RESEARCH AND SANCTUARIES ACT
OCEAN DUMPING PERMIT

PERMIT NUMBER AND TYPE: OD 87-01 Research

DRAFT

EFFECTIVE DATE: August 28, 1987

EXPIRATION DATE: February 28, 1988

REAPPLICATION DATE: December 28, 1987

APPLICANTS:

Star-Kist Samoa, Inc.
P.O. Box 368
Pago Pago
American Samoa 96799

Samoa Packing Co., Inc.
P.O. Box 957
Pago Pago
American Samoa 96799

PERMITTEES:

Star-Kist Samoa, Inc.
P.O. Box 368
Pago Pago
American Samoa 96799

Samoa Packing Co., Inc.
P.O. Box 957
Pago Pago
American Samoa 96799

WASTES GENERATED AT:

Star-Kist Samoa, Inc.
P.O. Box 368
Pago Pago
American Samoa 96799

Samoa Packing Co., Inc.
P.O. Box 957
Pago Pago
American Samoa 96799

WASTE TRANSPORTER: Azuma Maru No. 35
Pan Pacific Maritime, Inc.
Pago Pago, American Samoa

PORT OF DEPARTURE: Pago Pago Harbor, American Samoa

This Research Permit authorizes the transportation and dumping into ocean waters of certain material as described in the Special Conditions section pursuant to the Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. 1401 et seq.), as amended, (hereinafter referred to as "the Act"), regulations promulgated thereunder, and the terms and conditions set forth below.

A research permit is being issued to determine whether dumping of a substance will unreasonably degrade or endanger human health, welfare or amenities, or the marine environment, ecological systems, or economic potentialities [33 U.S.C. 1412a(1)(B)]. The Environmental Protection Agency (EPA) has determined that the scientific merit of the proposed project outweighs the potential environmental risks or other damage that may result from the dumping [40 CFR 220.3(e)].

DRAFT

1. GENERAL CONDITIONS

1.1. All transportation and dumping authorized herein shall be undertaken in a manner consistent with the terms and conditions of this permit. The permittees designated above shall be liable for compliance with all such terms and conditions. The liability of the permittees is set forth in the Special Conditions and they are jointly responsible for compliance with the terms of this permit. The permittees shall be held jointly and severally liable under Section 105 of the Act (33 U.S.C. 1415) in the event of any violation of the permit.

1.2. Under Section 105 of the Act any person who violates any provision of the Act, 40 CFR 220 through 229 issued thereunder, or any term or condition of this permit shall be liable for a civil penalty of not more than $50,000 per day for each violation. Additionally, any knowing violation of the Act, 40 CFR 220 through 229 or the permit may result in a criminal action being brought with penalties of not more than $50,000 or one year in prison, or both. Violations of the Act or the terms and conditions of this permit include but are not limited to:

1.2.1. Transportation to, and dumping at any location other than that authorized by this permit;

1.2.2. Transportation and dumping of any material not identified in, more frequently than, or in excess of that identified in this permit, unless specifically authorized by a written modification hereto;

1.2.3. Failure to conduct permit monitoring as required in Special Conditions 3.1, 4.6 and 5.1; or

1.2.4. Failure to file waste stream and disposal site monitoring reports as required in Special Conditions 3.3, 4.6, 5.1 and 5.3.

1.3. Nothing contained herein shall be deemed to authorize, in any way, the transportation from the United States for the purpose of dumping into the ocean waters, into the territorial sea, or into the contiguous zone, the following material:

1.3.1. Radioactive wastes;

1.3.2. Materials, in whatever form, produced for radiological, chemical, or biological warfare; or

1.3.3. Persistent synthetic or natural materials which may float or remain in suspension in the ocean.

DRAFT

1.4. Nothing contained herein shall be deemed to authorize, in any way, violation of applicable American Samoa Water Quality Standards.

1.5. After notice and opportunity for a hearing, this permit shall be subject to revision, revocation or limitation, in whole or in part, subject only to the provisions of 40 CFR 222.3(b) through (h) and 40 CFR 223.2, as a result of a determination by the Regional Administrator of EPA that:

1.5.1. The cumulative impact of the permittees' dumping activities or the aggregate impact of all dumping activities in the dump site designated in Special Condition 2.2 should be categorized as Impact Category I, as defined in 40 CFR 228.10(c)(1);

1.5.2. There has been a change in circumstances relating to the management of the disposal site designated in Special Condition 2.2;

1.5.3. The dumping authorized by the permit would violate applicable American Samoa Water Quality Standards; or

1.5.4. The dumping authorized can no longer be carried out consistent with the criteria set forth in 40 CFR 227 and 228.

1.6. The permittees shall ensure at all times that facilities, including vessels, are in good working order and operate as efficiently as possible to achieve compliance with the terms and conditions of this permit. During all transportation and loading operations, there shall not be a loss of material to any waterway.

1.7. The permittees shall allow the Regional Administrator of EPA, the Commander of the Fourteenth U.S. Coast Guard District (USCG), the Executive Secretary of the American Samoa Environmental Quality Commission (EQC), and/or their authorized representatives:

1.7.1. To enter into, upon, or through the permittees' premises, vessels, or other premises or vessels under the control of the permittee, where, or in which, a source of material to be dumped is located or in which any records are required to be kept under the terms and conditions of this permit or the Act;

1.7.2. To have access to and copy any records required to be kept under the terms and conditions of this permit or the Act;

DRAFT

1.7.3. To inspect any dumping equipment, navigational equipment, monitoring equipment or monitoring methods required in this permit;

1.7.4. To sample or require that a sample be drawn, under EPA, USCG, or EQC supervision, of any materials discharged or to be discharged; and

1.7.5. To inspect laboratory facilities, data, and quality control records required for compliance with any condition of this permit.

1.8. If material which is regulated by this permit is disposed of, due to an emergency to safeguard life at sea in locations or in a manner not in accordance with the terms of this permit, the permittees shall make a full report, in accordance with the provisions of 18 U.S C. 1001, within 15 days to the EPA Regional Administrator, the USCG and the EQC or their delegates detailing the conditions of this emergency and the actions taken, including the nature and amount of material disposed.

1.9. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of rights, nor any infringement of Federal, State or local laws or regulations, nor does it obviate the necessity of obtaining State or local assent required by applicable law for the activity authorized.

1.10. This permit does not authorize or approve the construction of any onshore or offshore physical structures or facilities, or, except as authorized by this permit, the undertaking of any work in any navigable waters.

1.11. Unless otherwise provided for herein, all terms used in this permit shall have the meanings assigned to them by the Act or 40 CFR 220 through 229, issued thereunder.

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2. SPECIAL CONDITIONS - PERMIT LIMITATIONS

Permit limitations are required to define the length of the permit period, identify the dump site location, describe the waste materials and define maximum permitted limits for each waste material.

2.1. Location of Waste Generator and Permit Term

2.1.1. The material to be dumped shall consist of waste materials resulting from the operation of the permittees' fish canneries at Pago Pago Harbor, American Samoa.

2.1.2. This permit shall expire at midnight on February 28, 1987.

2.2. Location of Disposal Site

Transportation for the purpose of ocean dumping shall terminate at, and waste disposal shall be confined to a circular area with 1.5 nautical mile diameter centered at 14° 22' 11" South latitude by 170° 40' 52" West longitude.

2.3. Description of Material

2.3.1. During the term of this permit, and in accordance with all other terms and conditions of this permit, the permittees are authorized to transport for disposal into ocean waters quantities of waste material that shall not exceed the following amounts:

2.3.1.1. Star-Kist Samoa

Waste Material	Amount
Dissolved Air Floatation (DAF) Sludge	60,000 gallons/day
Precooker Water	100,000 gallons/day
Press Water	40,000 gallons/day
Total Maximum Daily Volume	200,000 gallons/day
Grit	100 tons/month

2.3.1.1. Samoa Packing Company

Waste Material	Amount
Dissolved Air Floatation (DAF) Sludge	31,400 gallons/day
Precooker Water	12,200 gallons/day
Press Water	40,000 gallons/day
Total Maximum Daily Volume	83,600 gallons/day

2.3.1.3. Total Permitted Waste Material Discharges

Waste Material	Amount
Dissolved Air Floatation (DAF) Sludge	91,400 gallons/day
Precooker Water	112,200 gallons/day
Press Water	80,000 gallons/day
Total Maximum Daily Volume	283,600 gallons/day
Grit	100 tons/month

2.3.2. The transportation for disposal of floatables, garbage, domestic trash, waste chemicals, and solid waste is prohibited.

2.4. Waste Material Limitations

2.4.1. Permitted Physical and Chemical Constituents

Fish Processing Waste Material	Total Permitted Daily Volume To Be Dumped	Permitted Maximum Concentration Per Constituent	
DAF Sludge[a]	91,400 gal/day	Tot. Sus. Solids	219,000 mg/L
		BOD_5	269,000 mg/L
		Total Phosphorus	26,629 mg/L
		Total Nitrogen	44,854 mg/L
		Oil and Grease	345,000 mg/L
Precooker Water[a]	112,200 gal/day	Tot. Sus. Solids	65,000 mg/L
		BOD_5	82,100 mg/L
		Total Phosphorus	1,160 mg/L
		Total Nitrogen	9,930 mg/L
Press Water[a]	80,000 gal/day	Tot. Sus. Solids	285,000 mg/L
		BOD_5	144,200 mg/L
		Total Phosphorus	3,810 mg/L
		Total Nitrogen	18,210 mg/L
Grit[b]	100 tons/month	Solid Phase	
		Settled Solids	47.0% wet wt.
		Moisture	53.9% wet wt.
		Volatile Solids	28.3% wet wt.
		Liquid Phase	
		Tot. Sus. Solids	33.0 mg/L
		Total Nitrogen	271.0 mg/L
		Oil and Grease	18.0 mg/L

a = Maximum Permitted Concentrations are assumed to be greatest if the vessel contains waste material only from the Star-Kist Samoa plant. Concentrations listed for each of the waste materials were provided by Star-Kist Samoa.

b = Star-Kist Samoa only.

2.4.2. The pH range for all waste materials shall not be less than 5.5 pH units nor greater than 7.0 pH units.

2.4.3. The Permitted Maximum Concentration and pH limits, listed above, shall not be exceeded at any time during the term of this permit.

3. SPECIAL CONDITIONS - ANALYSIS OF WASTE MATERIAL

Compliance with the permitted maximum concentrations defined in Special Condition 2.4 shall be determined by monthly monitoring of each of the permittees' waste streams or grit before the material is loaded into the disposal vessel. Additional analyses of fish processing wastes and reporting requirements are defined in this section.

3.1. Analyses of Waste Material

3.1.1. Concentrations of the constituents in Special Condition 2.4 shall be determined by pooling three replicate samples, taken on the day that sampling is scheduled, to be used as a composite sample.

3.1.2. In addition to Special Condition 3.1.1, the permittees shall measure the following parameters by pooling three replicate samples from each waste material to obtain a composite sample:

Parameter	Detection Limits
Bulk Density	0.01 g/mL
pH	0.1 pH units
Total Suspended Solids	10 mg/L
Total Volatile Solids	10 mg/L
Settled Solids[a]	0.1 %
Volatile Solids[a]	0.1 %
Moisture[a]	0.1 %
BOD_5	10 mg/L
Total Phosphorus	1 mg/L
Total Nitrogen	1 mg/L
Ammonia	1 mg/L
Oil and Grease	10 mg/L
Aluminum	0.1 mg/L
Chromium	0.1 mg/L
Nickel	0.1 mg/L
Copper	0.1 mg/L
Lead	0.1 mg/L
Cadmium	0.1 mg/L
Mercury	0.01 mg/L
Total Petroleum Hydrocarbons	50 ug/L
Total Pesticides	5 ug/L
Total PCBs	10 ug/L

a = For grit only

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3.1.3. Each time grit is sampled, the parameters listed for grit under Special Condition 2.4.1 shall be analyzed, including volatile suspended solids (10 mg/L detection limit) and BOD_5 (10 mg/L detection limit) for the liquid phase.

3.1.4. All waste material sampling procedures, analytical protocols, and quality control/quality assurance procedures shall be performed in accordance with guidelines specified by EPA Region 9. The following references shall be used by the permittees where appropriate:

3.1.4.1. 40 CFR 136, EPA Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act;

3.1.4.2. Tetra Tech, Inc. 1985. Summary of U.S. EPA-approved methods, standard methods and other guidance for 301(h) monitoring variables. Final program document prepared for the Marine Operations Division, Office of Marine and Estuarine Protection, U.S. Environmental Protection Agency. EPA Contract No. 68-01-693. Tetra Tech, Inc., Bellevue, Wa. 18pp.; and

3.1.4.3. Environmental Protection Agency. 1987. Quality assurance and quality control for 301(h) monitoring programs: Guidance on field and Laboratory Methods. Office of Marine and Estuarine Protection, Washington, D.C. EPA 430/9-86-004.

3.1.5. Any waste material constituents listed in Special Condition 3.1.2 that are shown to be consistently nondetectable after the first three sampling periods, may be eliminated from further analytical tests. Before elimination of the parameter is permitted, the permittee shall obtain written approval from EPA Region 9 and the EQC.

3.2. Analytical Laboratory

3.2.1. Within 30 days of the effective date of this permit, the name and address of the designated laboratory or laboratories and a description of all analytical test procedures and quality assurance/quality control procedures, including detection limits being used, shall be provided for EPA Region 9 approval.

3.2.2. Any potential variation or change in the designated laboratory or analytical procedures shall be reported, in writing, for EPA Region 9 approval.

3.2.3. EPA Region 9 may require analyses of quality control samples by any laboratories employed for purposes of compliance with Special Condition 3.1 and Appendix A. Upon request, the permittee shall provide EPA Region 9 with the analytical results from such samples.

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3.2.4. A complete analysis of constituents, required in Special Condition 3.1, shall be made by the permittee and reported to EPA Region 9 and the EQC whenever there is a change in the quality of the waste, process configuration, or waste treatment. If deemed necessary by EPA Region 9, bioassays shall be required in addition to constituent analyses.

3.3. Reporting

3.3.1. Each permittee shall provide EPA Region 9 and the EQC with a monthly report containing:

3.3.1.1. Daily volumes, reported in gallons/day, of each waste material removed from the permittees' facilities;

3.3.1.2. Monthly waste material analyses demonstrating that the waste materials being dumped comply with the permitted limits of constituents listed in Special Condition 2.4;

3.3.1.3. Monthly analyses of the additional parameters listed in Special Condition 3.1,

3.3.1.4. The monthly amount of coagulant polymer and alum added to the waste streams; and

3.3.2. Such reports shall be submitted to EPA Region 9 and the EQC within 30 days of the end of the preceding month for which they were prepared. The reports shall be submitted in a timely manner unless extenuating circumstances, communicated to EPA Region 9 and the EQC in a written letter and approved by the agencies, necessitate a delay in reporting.

3.3.3. A summary report of all monthly reports listed in Special Condition 3.3.1, including a statistical analysis of parameter variability and a detailed discussion of the results of the monthly reports, shall be submitted by each permittee to EPA and the EQC 60 days after the permit expires.

3.3.4. Upon detection of a violation of any permit limitations, the permittee shall send a written notification of this violation to EPA Region 9 and the EQC within five working days and a detailed written report of the violation shall be sent to the agencies within 15 working days.

4. SPECIAL CONDITIONS - VESSEL OPERATIONS

Specification of vessel operations is required to limit dumping activities to the dump site identified in Special Condition 2.2 and to record all activities that occur at sea.

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4.1. Posting of the Permit

This permit, or a true copy thereof, shall be placed in a conspicuous place on any vessel which will be used for the transportation and dumping authorized by this permit. If the dumping vessel is an unmanned barge, the permit or true copy of the permit shall be transferred to the towing vessel.

4.2. Vessel Identification

Every vessel engaged in the transportation of wastes for ocean disposal shall have its name and number painted in letters and numbers at least four inches high on both sides of the vessel. The name and number shall be kept distinctly legible at all times, and a vessel without such markings shall not be used to transport or dump waste material.

4.3. Disposal Rate and Vessel Speed

The disposal vessel/barge shall discharge the material authorized by this permit beginning near the center of the disposal site identified in Special Condition 2.2. The disposal operation shall be conducted at a rate of 140 gallons per minute per knot, not to exceed 1400 gallons per minute at a maximum speed of 10 knots, while moving in a circle with a radius less than or equal to 0.2 nautical miles.

4.4. Navigational Equipment

The permittees shall employ an onboard electronic positioning system (see reference below) to accurately fix the position of the disposal vessel during all dumping operations. This system is subject to advanced approval by EPA Region 9 and the U.S. Coast Guard Liaison Office (CGLO) Pago Pago 15 days after the effective date of the permit.

Environmental Protection Agency. 1987. Evaluation of survey positioning methods for nearshore marine and estuarine waters. Office of Marine and Estuarine Protection, Washington, D.C. EPA 430/9-86-003.

4.5. Permitted Times for Disposal Operations

Dumping operations shall be restricted to daylight hours, unless an emergency exists and written authorization is obtained from the CGLO Pago Pago or the EQC prior to departure. EPA Region 9 shall be notified no later than five working days after the emergency in a written report of the situation.

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4.6. Reporting of the Ocean Dumping Vessel Operations

4.6.1. The waste transporter shall maintain and the permittees shall submit copies of a monthly transportation and dumping logbook, including plots of all relevant information requested in Special Condition 4.6.2, to EPA Region 9, CGLO Pago Pago, and the EQC within 30 days of the end of the preceeding month for which they were prepared. The report shall be submitted in a timely manner unless extenuating circumstances, communicated to EPA Region 9 and the EQC in a written letter and approved by the agencies, necessitates a delay in reporting.

4.6.2. The logbook shall contain the following information for each waste disposal trip:

4.6.2.1. Permit number, date and serial trip number;

4.6.2.2. The time that loading of the vessel commences and ceases;

4.6.2.3. The time and navigational position that dumping commences and ceases;

4.6.2.4. A record of vessel speed and direction every 15 minutes during each dumping operation at the disposal site, and a plot on a navigational chart of the vessel's course;

4.6.2.5. Observe, note and plot the time and position of any floatable material;

4.6.2.6. Observe, note and plot the wind speed and direction every 30 minutes;

4.6.2.7. Observe and note wave height at the beginning and end of the disposal trip;

4.6.2.8. Observe, note and plot any unusual occurrences during the disposal trip; and

4.6.2.9. Observe, note and plot any other information relevant to the assessment of environmental impacts as a result of dumping activities.

5. SPECIAL CONDITIONS - DUMPSITE MONITORING

The monitoring program for disposal of wastes in the ocean must document short- and long-term effects of disposed wastes on the receiving waters, biota, and beneficial uses of the receiving waters; and determine compliance with permit terms and conditions. Once an adequate background database is established and predictable relationships among biological and physical variables are

demonstrated, it may be appropriate to revise the monitoring program. Revisions may be made under the direction of EPA Region 9 at any time during the permit term, in compliance with 40 CFR 223.2 and 223.3. This may include a reduction or increase in the number or parameters to be monitored, the frequency of monitoring, the location of sample stations, or the number and size of samples to be collected.

5.1. Monitoring Program

The permittees are required to implement the EPA Region 9-specified monitoring program defined in Appendix A as a means of determining the environmental impacts of ocean dumping of the waste. The permittees shall notify the EQC at least 24 hours prior to any scheduled monitoring activities. Sampling days shall only be scheduled from Monday through Friday.

5.2. Monitoring Reports

Monthly site monitoring reports shall be submitted to EPA Region 9 and the EQC within 30 days of the end of the preceeding month for which the samples were taken. The reports shall be submitted in a timely manner unless extenuating circumstances, communicated to EPA Region 9 and the EQC in a written letter and approved by the agencies, necessitate a delay in reporting.

The reports shall include: neatly compiled raw data for all sample analyses, a quality assurance/quality control package for the data, statistical analysis of sample variability between stations and within samples for appropriate parameters, and a discussion of the results.

5.3. Final Summary Report

5.3.1. A report summarizing all of the data collected during the waste material and dump site monitoring programs shall be submitted to EPA Region 9, the EQC and the U.S. Fish and Wildlife Service 60 days after the permit expires.

5.3.2. At a minimum, the summary report shall contain the following sections:

5.3.2.1. Introduction (including a brief summary of previous ocean disposal activities),

5.3.2.2. Location of Study Sites,

5.3.2.3. Materials and Methods,

5.3.2.4. Results and Discussion (including comparisons and contrasts with previous data related to disposal of fish processing wastes off American Samoa),

5.3.2.5. Conclusions,

5.3.2.6. References,

5.3.2.7. Raw Data Appendix, and

5.3.2.8. Quality Assurance/Quality Control Information.

5.4. Quality Assurance/Quality Control

All appropriate phases of the monitoring, sampling, and laboratory analytical procedures shall adhere to the EPA Region 9-specified protocols and references listed in Special Condition 3.1.4.

6. SPECIAL CONDITIONS - NOTICE TO REGULATORY AGENCIES

6.1. Notice of Sailing to U.S. Coast Guard

6.1.1. The waste transporter shall provide telephone notification of sailing to CGLO Pago Pago at 633-2299 or the EQC at 633-2304 during working hours (7:00 a.m. to 3:30 p.m.) no later than 24 hours prior to the estimated time of departure for the dump site designated in Special Condition 2.2.

6.1.2. The waste transporter shall immediately notify CGLO Pago Pago or the EQC upon any changes in the estimated time of departure greater than two hours.

6.1.3. Surveillance of activities at the dump site designated in Special Condition 2.2, may be accomplished by unannounced aerial overflights, a USCG shiprider and/or an EQC shiprider who will be on board the towing/conveyance vessel for the entire voyage. Within two hours after receipt of the initial notification the waste transporter will be advised as to whether or not a shiprider will be assigned to the voyage.

6.1.4. The following information shall be provided to CGLO Pago Pago or the EQC in the above-mentioned notification of sailing:

6.1.4.1. The time of departure,

6.1.4.2. Estimated time of arrival at the dump site,

6.1.4.3. Estimated time of departure from the dump site, and

6.1.4.4. Estimated time of return to port.

6.2. Reports and Correspondence

6.2.1. Two copies of all reports and related correspondence required by General Condition 1.8, Special Conditions 3.1, 3.2, 3.3, 4.4, 4.5, 4.6, 5.2, 5.3, and all other materials, including applications shall be submitted to EPA Region 9 at the following address:

Office of Territorial Programs (W-1-1)
U.S. Environmental Protection Agency, Region 9
215 Fremont Street
San Francisco, California 94105
Telephone (415) 974-7432

6.2.2. Two copies of all reports required by General Condition 1.8 and Special Conditions 4.4, 4.5, 4.6 and 6.1 sent to the U.S. Coast Guard shall be submitted to the following address:

Commanding Officer
U.S. Coast Guard Liaison Office
P.O. Box 249
Pago Pago
American Samoa 96799
Telephone 633-2299

6.2.3. Three copies of all reports required by General Condition 1.8 and Special Conditions 3.1, 3.2, 3.3, 4.4, 4.5, 4.6, 5.1, 5.2, 5.3 and 6.1 sent to the American Samoa Environmental Quality Commission shall be submitted to the following address:

Executive Secretary
American Samoa Environmental Quality Commission
Office of the Governor
Pago Pago
American Samoa 96799
Telephone 633-2682

6.2.4. One copy of the summary report required by Special Condition 5.3 shall be sent to the U.S. Fish and Wildlife Service at the following address:

Project Leader
Office of Environmental Services
U.S. Fish and Wildlife Service
300 Ala Moana Boulevard
P.O. Box 50167
Honolulu, Hawaii 96850

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Signed this _____ day of _____, 1987.

For the Regional Administrator

_____

Harry Seraydarian
Director
Water Management Division

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APPENDIX A

STAR-KIST SAMOA AND SAMOA PACKING COMPANY
OCEAN DUMPING RESEARCH PERMIT OD 87-01
JOINT OCEAN DUMP SITE MONITORING PLAN

1. MONITORING OF RECEIVING WATER

1.1. Location of Water Sampling Stations

1.1.1. On each sampling cruise, the latitude and longitude of all sampling stations shall be determined using appropriate navigational equipment.

1.1.2. The following sample stations shall be occupied on each sampling cruise (see Figure 1.1):

1.1.2.1. Station A - 1.50 nautical miles up current of Station B to be used as the control station,

1.1.2.2. Station B - Center of the dumping operation,

1.1.2.3. Station C - The point within the plume at which the drogues have moved in one hour relative to the prevailing current,

1.1.2.4. Station D - The point within the plume at which the drogues have moved in two hours relative to the prevailing current,

1.1.2.5. Station E - The point within the plume at which the drogues have moved in three hours relative to the prevailing current,

1.1.2.6. Station F - The point within the plume at which the drogues have moved in four hours relative to the prevailing current,

1.1.2.7. Station G - The point within the plume at which the drogues have moved four hours after disposal operations have ceased,

1.1.2.8. Station H - 0.50 nautical miles from Station G and 270° relative to the prevailing current,

1.1.2.9. Station I - 0.50 nautical miles from Station G and 90° relative to the prevailing current

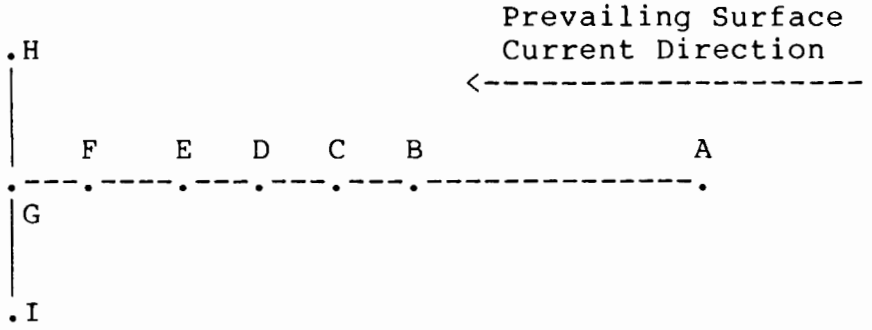

Figure 1.1. Orientation of Sample Stations Relative to the Prevailing Surface Current at the Time of Sampling.

1.2. Physical Oceanographic Data

1.2.1. Current speed and direction shall be determined at Stations A and B by using an appropriate profiling current meter on each sampling cruise before sampling commences. This information will be used to locate sample stations defined in 1.1.2.

1.2.2. On each sampling cruise, a water column profile of the following parameters shall be made prior to dumping at Stations A and B using appropriate probes:

Parameter	Detection Limits
Temperature	0.1 °C
Salinity	0.1 °/oo
Dissolved Oxygen	0.1 mg/L
pH	0.1 pH units
Transmissivity	0.1 % transmittance

1.2.3. The profiles required in Section 1.2.2 shall be made to a depth of 10 meters.

1.2.4. Water column profiling devices shall be calibrated before and after each survey to ensure high quality data collection.

1.2.5. Surface conditions shall be recorded at all stations including:

1.2.5.1. Wind speed and direction;

1.2.5.2. Wave height; and

1.2.5.3. Observations of industrial waste, color, odor, floating materials, grease, oil, scum, foam or other floating materials attributed to fish wastes.

1.3. Water Column Characteristics to Be Measured

1.3.1. The limited permissible concentration (LPC) of the liquid phase of the waste material shall not be exceeded at the disposal site boundary four hours after disposal operations cease. The LPC is that concentration of the material which, after allowance for initial mixing as defined at 40 CFR 227.29, does not exceed applicable American Samoa Oceanic Water Quality Standards. EPA Region 9 and the EQC will evaluate the LPC based on EPA's Ocean Dumping Regulations and the water quality values obtained for the reference site (Section 1.1.2.1 above).

1.3.2. The following standards apply specifically to American Samoa oceanic water:

Parameter	Median not to exceed given value	Not to exceed given value 10% of the time	Not to exceed given value 2% of the time
Turbidity (NTU)	0.20	0.29	0.36
Total Phosphorus (ug P/L)	11.0	23.0	35.0
Total Nitrogen (ug N/L)	115.0	180.0	230.0
Chlorophyll a (ug/L)	0.18	0.40	0.65
Light Penetration Depth (feet)	150*	132*	120*
Dissolved Oxygen	Not less than 80% of saturation or less than 5.5 mg/L. If the natural level of dissolved oxygen is less than 5.5 mg/L, then the natural level shall become the standard.		
pH	The range shall be 6.5 to 8.6 pH units and within 0.2 pH units of that which would occur naturally.		

*To exceed the given value 50%, 90% and 98% of the time respectively.

1.3.3. Water column sampling depths for each of eight stations listed in 1.1.2 above shall include:

1.3.3.1. 1 meter below the surface,

1.3.3.2. 3 meters deep, and

1.3.3.3. 10 meters deep.

1.3.4. Water samples shall be obtained using self-closing 3-liter water sample device at each depth listed in 1.3.3.

1.3.5. Water column parameters analyzed from samples taken at the depths listed in 1.3.3 shall include:

Parameters	Detection Limits
Total Suspended Solids	0.1 mg/L
Volatile Suspended Solids	0.1 mg/L
Transmissivity[a]	0.1 % transmittance
pH[a]	0.1 pH units
Total Phosphorus	0.001 mg/L
Total Nitrogen	0.001 mg/L
Dissolved Oxygen[a]	0.1 mg/L
Ammonia[a]	0.001 mg/L

a = sampled with a probe to a depth of 10 meters

1.3.6. If waste stream analyses, described in Special Condition 3.1, detect significantly high levels of constituents that may adversely affect marine water quality, EPA Region 9 will require that those constituents be added to the list of water column parameters in 1.3.5 above.

1.4. Discharge Plume Tracking with Drogues

1.4.1. The movement of the waste plume shall be tracked during each monitoring cruise to provide data which will be used in developing a plume model for fish cannery wastes.

1.4.2. Currents and water movements shall be determined by setting two drogues three meters deep at the time that dumping begins.

1.4.3. The drogues shall be tracked from the time that they are released until four hours after disposal operations have ceased. During tracking, the position of the drogues determined by triangulation shall be recorded every hour. These positions shall be plotted on a navigational chart to determine the speed and direction of the plume.

1.5. Frequency of Water Sampling Cruises and Station Sampling

1.5.1. Water samples and appropriate probe readings required under Section 1.3.5 shall be taken at the drogue tracking locations when dumping operations are scheduled. Each station listed under Section 1.1 shall be sampled once each month. These samples shall be used to characterize the receiving waters at the disposal site.

1.5.2. The sample at Station A shall be taken prior to dumping activities.

1.5.3. Station B shall be sampled at a point near the drogues within the plume immediately after discharge operations begin.

1.5.4. Stations C through F shall be sampled at hourly intervals at a point near the drogues within the plume up to four hours after discharge operations begin.

1.5.5 Station G shall be sampled at a point near the drogues within the plume four hours after discharge operations cease.

1.5.6. Station H shall be sampled as soon as possible after Station G is sampled.

1.5.7. Station I shall be sampled as soon as possible after Station H is sampled.

1.5.8. The time of sampling and the triangulated position of each station shall be determined before each sample is taken.

2. MONITORING OF BIOLOGICIAL COMMUNITIES

2.1. Pelagic Resources

2.1.1. All sightings of fish, sea turtles, sea birds, or cetaceans near the disposal site shall be recorded including:

2.1.1.1. Time, location and bearing,

2.1.1.2. Species name(s), and

2.1.1.3. Approximate number of individuals.

2.2. Bioassay Study

2.2.1. Additional bioassay studies may be required for this research permit, based upon information gathered in EPA Region 9's ocean dumping permit OD 86-01. If the results of the bioassays, required in Section 2.2 of the monitoring program for OD 86-01, are not completed, then the tests listed below shall be performed to determine disposal material toxicity. EPA Region 9 may limit the number of bioassay tests based on receipt of results for the tests required in the monitoring program for permit OD 86-01.

2.2.2. Acute toxicity tests of the DAF sludge from each of the permittee's facilities shall be performed on representative samples taken during the first, third and fifth months. These tests will be used to determine the toxic variability of the waste materials and to document potential environmental impacts at the dump site.

2.2.3. On the same day that DAF sludge samples are taken, one sample from the disposal vessel's hold shall be taken and a bioassay test shall be conducted on that material. On the sample day, each permittee shall determine and report the percentage that their DAF sludge constitutes in the barge load. These tests and data shall be used to assess the relative toxicity of the waste material being discharged into the ocean at the disposal site.

2.2.4. The test species shall include:

2.2.3.1. Planktonic copepod (Acartia sp.), or an isopod (Eurydice caudata) to be determined by the permittee and approved by EPA Region 9;

2.2.3.2. Mysid shrimp (Acanthomysis sculpta); and

2.2.3.3. California killifish (Fundulus parvipinnis).

2.2.4. The tests (96 hour LC50, mg/L) shall be performed in accordance with Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms (Third Edition), EPA 600/4-85-013, March 1985.

2.2.5 Reports on the results of the bioassay tests may be submitted independent of the required monthly monitoring reports as specified in Special Condition 5.2, if necessary. Bioassay test results shall be submitted no later than 60 days after the month that samples were taken to perform the required bioassays.

NOTICE OF APPLICATION AND PROPOSED ACTION
by the
U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)
REGION IX
215 FREMONT STREET
SAN FRANCISCO, CALIFORNIA 94105
(415) 974-0257

Application for a Permit
to Transport and Dump Materials
into Ocean Waters

Public Notice for Ocean Dumping Permit Number OD 87-01

Pursuant to Section 102 of the Marine Protection, Research and Sanctuaries Act of 1972 (MPRSA), as amended (33 U.S.C. 1401 et seq.) and 40 CFR 222.3 of EPA's Ocean Dumping Regulations and Criteria (42 FR 2462 et seq., January 11, 1977), notice is hereby given of receipt by this office of complete applications for a permit to transport and dump materials into ocean waters from:

Star-Kist Foods, Inc.
180 East Ocean Boulevard
Long Beach, California 90802

and

Ralston Purina Co., Inc.
Van Camp Seafood Division
Checkerboard Square
St. Louis, Missouri 63164

on behalf of their respective subsidiary companies

Star-Kist Samoa, Inc.
P.O. Box 368
Pago Pago, American Samoa 96799

and

Samoa Packing Company, Inc.
P.O. Box 957
Pago Pago, American Samoa 96799

TENTATIVE DETERMINATION

EPA has made the tentative determination to issue a research ocean dumping permit to Star-Kist Samoa and Samoa Packing Company for a six month period. The agency has determined that a permit is required for ocean disposal of fish cannery wastes produced at the American Samoa canneries. Information developed during the permit period and data gathered as required in ocean dumping permit OD 86-01 will be used to determine whether dumping on a more permanent basis would unreasonably degrade or endanger human health, the marine environment, ecological systems or economic potentialities [33 U.S.C. 1412a(1)(B)].

The scale of the proposed dumping during the research period is expected to have minimal adverse impact on human health and/or the environment. While more data are needed to confirm the absence of unreasonable adverse effects from the discharge of fish wastes adulterated with alum and a coagulant polymer, the existing data and data obtained from ocean dumping permit OD 86-01 indicate that impacts at the site should be minimal. The primary

environmental impact of the proposed discharges would be short-term increases in turbidity, inorganic nutrients, biological oxygen demand and ammonia during the dumping event. Preliminary scientific studies of ocean disposal of dissolved air flotation (DAF) sludge in American Samoa indicate that water quality parameters should return to ambient conditions following the period of initial mixing after an ocean dumping event. To ensure that American Samoa Water Quality Standards are not exceeded after the period of initial mixing, restrictive disposal rates and limitations on the waste material constituents have been included in the permit. Hence, EPA believes that the benefit of assessing the impact of discharging fish cannery wastes outweighs any adverse impact that may occur as a result of permitting the discharge for six months.

During the term of the permit, the permittees will be required to jointly conduct a revised EPA Region 9-approved site monitoring program, including laboratory analyses and possible bioassays, to document that the American Samoa Water Quality Standards are met and environmental impacts in the ocean are minimal. Information gathered during the term of this research permit will be used to augment EPA's efforts to formally designate an ocean disposal site, according to EPA's voluntary environmental impact statement policy for ocean disposal sites (39 FR 37119, October 24, 1974), and issue a special permit under 40 CFR 227, if appropriate.

SUMMARY OF APPLICATION INFORMATION

Star-Kist Samoa and Samoa Packing Company propose to ocean dump waste materials resulting from their fish processing plants in Pago Pago, American Samoa. The materials to be disposed are fish processing wastes, including DAF sludge, precooker water, press water and grit. The material will be discharged at a site 2.1 nautical miles southeast of Tutuila Island, near Pago Pago, water depth at the site is approximately 5,400 feet. The disposal site is a circle with a diameter of 1.5 nautical mile, centered at 14° 22' 11" South latitude by 170° 40' 52" West longitude.

The waste materials are produced during the canning process at the two plants. DAF sludge is the material that remains after treatment of fish processing waste to remove grease and suspended particulate matter. Odor reducing chemicals and coagulants are added to the sludge before it is removed from the plants. Precooker water is a combination of stick water and other process waste water that collects under the steam precookers. Press water is waste water produced at the fish meal plants when fish scrap is cooked and pressed before being dried to produce a livestock food meal. Grit is composed of solids that have settled out in a surge tank at the processing plant before the wastes are treated. Based on the dilution levels expected at the dump site, the waste materials are not expected to cause significant long-term impacts to oceanic water quality as defined in the American Samoa Water Quality Standards.

During the term of the research permit, and in accordance with all other terms and conditions of the permit, the permittees are authorized to transport for disposal into ocean waters quantities of waste material that shall not exceed the following amounts:

Waste Material	Star-Kist Samoa (gallons/day)	Samoa Packing Co. (gallons/day)	Total Permitted Discharge (gallons/day)
DAF Sludge	60,000	31,400	91,400
Precooker Water	100,000	12,200	112,200
Press Water	40,000	40,000	80,000
Total Maximum Daily Volume	200,000	83,600	283,600
Grit[a]	100 tons/month		100 tons/month

a = Star-Kist Samoa only

PUBLIC COMMENTS AND INITIATION OF HEARINGS

Within 30 days of the date of this notice, any person may request a public hearing to consider the issuance or denial of, or the conditions to be imposed upon this permit. Any such request for a public hearing must: 1) be in writing; 2) identify the person requesting the hearing; and 3) state any objections to the issuance or denial of, or to the conditions to be imposed upon this permit, and the issues which are proposed to be considered at the hearing. In accordance with 40 CFR 222.4 the Regional Adminsitrator's determination on whether or not to hold a public hearing shall be based on whether the request presents genuine issues of policy or facts amenable to resolution by public hearing.

The Administrative Record, which includes the application, the draft permit and other relevant documents, is available for public review Monday through Friday from 9:00 am to 4:00 pm at the EPA address shown above, or at the Environmental Quality Commission, Office of the Governor, Pago Pago, American Samoa 96799, telephone 633-2682. Persons wishing to comment upon or object to the tentative determination may do so by submitting such written comments within 30 days of the date of this notice to:

U.S. Environmental Protection Agency
Region IX
Attn: Patrick Cotter (W-5-3)
215 Fremont Street
San Francisco, California 94105
Telephone (415) 974-0257

All comments or objections received within 30 days of the date of this notice will be considered in the formulation of final determinations regarding the application. Further information may be obtained by writing or calling the EPA Regional Office or the American Samoa Environmental Quality Commission.

FACT SHEET

OCEAN DUMPING PERMIT OD 87-01 RESEARCH

STAR-KIST SAMOA, INC. AND SAMOA PACKING COMPANY, INC.
PAGO PAGO, AMERICAN SAMOA

I. Summary

The U.S. Environmental Protection Agency (EPA) Region 9 has received complete applications from Star-Kist Foods, Incorporated and Ralston Purina Company, Incorporated for ocean disposal of fish processing wastes off Pago Pago, American Samoa. The applications were made on behalf of their subsidiaries, Star-Kist Samoa, Incorporated and Samoa Packing Company, Incorporated, respectively. In accordance with EPA's authority established in Sections 101 and 102 of the Marine Protection, Research and Sanctuaries Act of 1972 (MPRSA) (33 U.S.C. 1401 et seq.), the Regional Administrator has tentatively decided to issue a joint research permit to the subsidiary companies for ocean disposal of fish processing wastes over a six month period.

The monitoring program included in the research permit has been revised from the one required in EPA Region 9's ocean dumping permit OD 86-01. The program is designed to identify potential sources of pollution from the plant waste streams, to ensure that American Samoa Water Quality Standards are not violated, and to determine whether ocean dumping is likely to unreasonably degrade or endanger human health or the marine environment. EPA Region 9 will not proceed with final approval of this research permit without public comment, or the concurrence of the American Samoa Government and other Federal agencies required under EPA's Ocean Dumping Regulations at 40 CFR 220 through 229.

The draft research permit and the administrative record are available for public review at EPA's Regional Office, 215 Fremont Street, San Francisco, California and the Environmental Quality Commission, Office of the Governor, Pago Pago, American Samoa. The administrative record sets forth the principal facts and the significant legal, methodological and policy questions considered in the development of the research permit.

II. Description of the Proposed Project

A. Project Overview

The two fish canneries in American Samoa, Star-Kist Samoa and Samoa Packing Company, propose to ocean dispose of fish processing wastes at a dump site centered approximately 2.1 nautical miles south of Tutuila Island in 900 fathoms (5,400 feet or 1,800 meters) of water. The waste materials will be

transported to the site and discharged at a rate less than or equal to 1400 gallons per minute at a maximum speed of 10 knots within a 0.2 nautical mile radius circle.

The receiving waters, at the above location, are classified as "oceanic" by the American Samoa Water Quality Standards. These waters are characterized by low values for turbidity, nitrogen, phosphorus and chlorophyll a; a high degree of light penetration; near saturation values for dissolved oxygen; and a wide range of pH values. Four hours after dumping has ceased, concentrations of the above parameters must return to the ambient levels (40 CRF 227.29) defined in the American Samoa Water Quality Standards. EPA Region 9 will evaluate potential impacts to water quality based on the data obtained from the reference site stipulated in the permit, and the American Samoa Water Quality Standards.

B. Location of Disposal Site

If the permit is issued, transportation for the purpose of ocean dumping would terminate at, and waste disposal would be confined to a circular area with a 1.5 nautical mile diameter centered at 14° 22' 11" South latitude by 170° 40' 52" West longitude.

III. EPA's Authority To Issue Ocean Dumping Permits

A. EPA's authority to issue ocean dumping permits is defined under Sections 101 and 102 of MPRSA and at 40 CFR 220.4. The authority to issue research permits was delegated to the regional offices on July 25, 1984.

B. Section 101(b) of MPRSA authorizes the Administrator to issue permits necessary to conduct research. Section 101(b)(3) directs that EPA shall consult with the Secretary of Commerce to ensure that the potential benefits of a research permit outweigh any potentially adverse impacts during the study period. This subsection also limits the period of a research permit to six months.

C. Section 102 of MPRSA gives EPA the authority to issue permits for disposal of wastes other than dredge material. A formal site designation does not have to occur in order to issue a research permit. Future long-term use of this site will depend upon evaluation of data generated during the previous research permit (OD 86-01), results of monitoring contained in this proposed permit, and the applicants' demonstration of need regarding ocean disposal.

IV. Tentative Decision and Summary of Factors Considered in Reaching the Permit Decision

Star-Kist Samoa and Samoa Packing Company have applied for an Ocean Dumping Permit to dispose of their fish cannery wastes near Pago Pago, American Samoa. EPA Region 9 is planning to grant their application by issuing them a research ocean dumping permit for a period of six months.

Information developed during the permit period plus data from the previous permit (OD 86-01) will be used to determine whether dumping on a more permanent basis would unreasonably degrade or endanger human health, the marine environment, ecological systems or economic potentialities [33 U.S.C. 1412a(1)(B)]. The permittees will be required to conduct a revised EPA Region 9-approved site monitoring program, including laboratory analyses and possible bioassay tests, to document that environmental impacts in the ocean will not be unreasonable and that American Samoa Water Quality Standards will be met. This information will be used to augment EPA's efforts to formally designate an ocean disposal site according to the agency's voluntary environmental impact statement policy for ocean disposal site designation (39 FR 37119, October 24, 1974), and to issue a special ocean dumping permit under 40 CFR 227, if appropriate.

The scale of the proposed dumping during the research period is expected to have minimal adverse impact on human health and/or the environment. While more data are needed to confirm the absence of unreasonable adverse effects from the discharge of fish wastes adulterated with alum and a coagulant polymer, the existing data indicate that impacts at the site should be minimal. The primary environmental impact of the proposed discharges would be short-term increases in turbidity, inorganic nutrients, biological oxygen demand and ammonia during the dumping event. Preliminary scientific studies of ocean disposal of dissolved air flotation (DAF) sludge in American Samoa indicate that water quality parameters should return to ambient conditions following the period of initial mixing after an ocean dumping event (40 CFR 227.29). To ensure that American Samoa Water Quality Standards are not exceeded after the period of initial mixing, restrictive disposal rates and limitations on the waste material constituents are defined in the permit. Hence, EPA believes that the benefit of assessing the impact of the discharging fish cannery wastes outweighs any adverse impact that may occur as a result of permitting the discharge for six months.

V. Terms of the Proposed Permit

A. Description of Waste Material

During the term of the research permit, and in accordance with all other terms and conditions of the permit, the permittees would be authorized to transport for disposal into ocean waters quantities of waste material that shall not exceed the following amounts:

Waste Material	Star-Kist Samoa (gallons/day)	Samoa Packing Co. (gallons/day)	Total Permitted Discharge (gallons/day)
DAF Sludge	60,000	31,400	91,400
Precooker Water	100,000	12,200	112,200
Press Water	40,000	40,000	80,000
Total Maximum Daily Volume	200,000	83,600	283,600
Grit	100 tons/month	0	100 tons/month

B. Waste Material Limitations in the Proposed Permit

1. The Permitted Maximum Concentrations were determined based on waste material concentrations provided by the applicants in their amended permit applications.

Fish Processing Waste Material	Total Permitted Daily Volume To Be Dumped	Permitted Maximum Concentration Per Constituent	
DAF Sludge[a]	91,400 gal/day	Tot. Sus. Solids	219,000 mg/L
		BOD_5	269,000 mg/L
		Total Phosphorus	26,629 mg/L
		Total Nitrogen	44,854 mg/L
		Oil and Grease	345,000 mg/L
Precooker Water[a]	113,300 gal/day	Tot. Sus. Solids	65,000 mg/L
		BOD_5	82,100 mg/L
		Total Phosphorus	1,160 mg/L
		Total Nitrogen	9,930 mg/L
Press Water[a]	42,200 gal/day	Tot. Sus. Solids	285,000 mg/L
		BOD_5	144,200 mg/L
		Total Phosphorus	3,810 mg/L
		Total Nitrogen	18,210 mg/L
Grit[b]	100 tons/month	Solid Phase	
		Settled Solids	47.0% wet wt.
		Volatile Solids	28.3% wet wt.
		Moisture	53.9% wet wt.
		Liquid Phase	
		Tot. Sus. Solids	33.0 mg/L
		Total Nitrogen	271.0 mg/L
		Oil and Grease	18.0 mg/L

a = Maximum Permitted Concentrations are assumed to be highest if the vessel contains waste material only from the Star-Kist Samoa plant. Concentrations listed for each of the waste materials were provided by Star-Kist Samoa.

b = Star-Kist Samoa, Inc. only

2. The pH range for all waste material will be between 5.5 and 7.0 pH units.

3. The Permitted Maximum Concentrations and pH range, listed above, shall not be exceeded at any time during the term of this permit.

4. Detection limits have been specified for all analytical parameters (see Special Condition 3.1.2).

5. The American Samoa Government asked that they be given the responsibility to permit the disposal of grit (June 22, 1987). After discussions with representatives of Star-Kist Foods on July 14, 1987, EPA Region 9 determined that grit and waste streams flowing into the surge tank where grit settles may have waste water from plant washing operations, containing detergents and lubrication products. Since the plant is constructed in this configuration, grit derived from the surge tank would not be exempt under 40 CFR 220.1(c)(1) and is subject to permitting under Section 102 of MPRSA.

   EPA has not received an application to dispose of grit from the Samoa Packing Company. If the cannery desires to dispose of grit, then this material should be included in the formal application of ocean disposal.

C. Changes in the Monitoring Program

1. The locations of the sampling stations were changed to allow the permittees to monitor the disposal plume more closely over the entire period of dumping. This includes the four hour time period after dumping has ceased as specified by the definition of limiting permissible concentration at 40 CFR 227.29 (see Sections 1.1 and 1.3.1).

2. The maximum depth at which samples will be taken was changed from 20 to 10 meters because the disposal plume never reached the 20 meter depth (see Sections 1.2.3 and 1.3.5).

3. Detection limits have been specified for all parameters to be sampled (see Sections 1.2.2 and 1.3.5).

4. Requirements for plume/drogue tracking were combined into an overall sampling strategy that will allow better use of resources at the disposal site. More relevant data will be obtained using these new procedures (see Sections 1.4 and 1.5).

5. Additional bioassays may be need if circumstances beyond the control of the permittees prevent the full set of three bioassays from being completed as specified in the previous research permit (OD 86-01). An additional isopod bioassay test species, Eurydice caudata, has been added as a result of problems with control stocks at the laboratory employed by the permittees (see Section 2.2).

6. Permit reporting, in general, has been substantially strengthened and highlighted as a very important part of permit compliance (see General Condition 1.2.3; Special Conditions 3.3.2, 3.3.3, 4.6.1, 5.2, 5.3.2; and Section 2.2.5).

VI. Administrative Procedures

A. The processing of an ocean dumping permit consists of the following actions:

1. EPA receives a completed application (40 CFR 221).

2. EPA issues a tentative decision whether to grant or deny the research permit (40 CFR 222.2). A draft permit is the means by which EPA documents the intent to grant an ocean dumping permit.

3. A public notice is issued to announce EPA's intent to issue the permit (40 CFR 222.3). The notice contains the following elements: summary, tentative determination, hearing process, factors considered in reaching the tentative determination and the location of all information on the draft permit. Public notices describing EPA's intent to issue a permit are published in a daily newspaper in closest proximity to the proposed dump site and in a daily newspaper in the city in which EPA's regional office is located.

4. Before a final decision can be made on the research permit, formal consultation must be documented with the following agencies: American Samoa Government, U.S. Army Corps of Engineers, U.S. Coast Guard, National Marine Fisheries Service, U.S. Fish and Wildlife Service and the Shellfish Sanitation Branch of the Food and Drug Administration.

B. Initiation of a Public Hearing

1. Within 30 days of the date of the public notice, any person may request a public hearing to consider issuance or denial of the research permit or conditions to be imposed upon this permit. Any request for a hearing must be made in writing; must identify the person requesting the hearing; and must clearly state any objections to issuance or denial of the permit or to the conditions to be imposed upon the permit, and the issues to be considered at the hearing. In

accordance with 40 CFR 222.4, the Regional Administrator may schedule a hearing, at her discretion, based on genuine issues presented in the written request or the necessity to hold a public hearing.

2. Upon receipt of a written request presenting genuine issues amenable to resolution by a public hearing, the Regional Administrator determines a time and place for the hearing and publishes a notice of the hearing. All interested parties are invited to be present or represented at the hearing to express their views on the proposed issuance or denial of the permit. If a request for a public hearing is made within 30 days of the date of this notice and does not meet the above criteria, the Regional Administrator must advise the requesting person in writing and proceed to rule on the application.

3. Following adjournment of the public hearing, the Presiding Officer, appointed by the Regional Administrator, prepares written recommendations relating to the issuance, denial or conditions to be imposed upon the permit after full consideration of the views and arguments expressed at the hearing (40 CFR 222.6 to 222.8). The Presiding Officer's recommendations and the record of the hearing are forwarded to the Regional Administrator within 30 days of the hearing.

4. The Regional Administrator makes a determination whether to issue, deny or impose conditions on the permit within 30 days of receipt of the Presiding Officer's recommendations. She must give written notice of the decision to any person registered at the public hearing (40 CFR 222.9).

5. A final permit becomes effective 10 days after issuance, if no requests for an adjudicatory hearing are received. Requests for an adjudicatory hearing may be made within 10 days of receipt of the notice to issue or deny the permit (40 CFR 222.10 to 222.11). An appeal of the adjudicatory hearing decision may be made in writing to the Administrator within 10 days following receipt of the Regional Administrator's determination on the adjudicatory hearing (40 CFR 222.12).

VI. Additional Information

The copies of the applications, related documents, the fact sheet and the draft research permit are on file at the U.S. Environmental Protection Agency, Region 9, Oceans and Estuaries Section (W-5-3), 215 Fremont Street, San Francisco, California 94105 or the American Samoa Environmental Quality Commission, Office of the Governor, Pago Pago, American Samoa 96799. These documents may be inspected, and arrangements made for copying at a charge of $0.20 per copy sheet, at the above offices between 8:00 a.m. and 4:00 p.m., Monday through Friday.

For further information on the research permit or questions pertaining to MPRSA regulations, please contact:

Patrick Cotter
U.S. EPA Region 9
Oceans & Estuaries Section
(W-5-3)
215 Fremont Street
San Francisco, CA 94105
(415) 974-0257

or Susan Cox
U.S. EPA Region 9
Office of Territorial Programs
(W-1-1)
215 Fremont Street
San Francisco, CA 94105
(415) 974-7432

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DHL Air Bill: 12532262

21 JUL 1987

American Samoa News
P.O. Box 909
Pago Pago, American Samoa 96799

Dear Sir:

Enclosed is a copy of a public notice of a proposed action by the Environmental Protection Agency for:

Star-Kist Samoa/Samoa Packing Company
Ocean Dumping Permit No. OD 87-01

Please schedule the enclosed public notice to appear in the Classified Advertisement, Legal Notice section, of your newspaper on Friday, July 24, 1987 and for one time only.

The procedure for the request of payment is outlined in the attached advertising order form. Upon issuance of the public notice in your newspaper, please provide our office with two affidavits or proofs of publication. The two affidavits and a copy of the advertising order should be sent to the letterhead address, attention: Financial Management Office, P-4.

If you have any questions in this matter please call me at (415) 974-9526 or Patrick Cotter at (415) 974-0257.

Sincerely,

Patrick Chan
Permits and Pretreatment Section

Enclosure

CONCURRENCES								
SYMBOL	W-5-1							
SURNAME	Chan							
DATE	7/21/87							

EPA Form 1320-1 (12-70) OFFICIAL FILE COPY

*U.S. GPO : 1985-467-853

DHL Air Bill:

21 JUL 1987

San Francisco Chronicle
950 Mission St.
San Francisco, CA 94103
Attn: Legal Advertisement/ Linda Edwards

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Star-Kist Samoa/Samoa Packing Company
Ocean Dumping Permit No. OD 87-01

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Sincerely,

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EPA Form 1320-1 (12-70) OFFICIAL FILE COPY

*U.S. GPO : 1985-467-853

NOTICE OF APPLICATION AND PROPOSED ACTION
by the
U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)
REGION IX
215 FREMONT STREET
SAN FRANCISCO, CALIFORNIA 94105
(415) 974-0257

Application for a Permit
to Transport and Dump Materials
into Ocean Waters

Public Notice for Ocean Dumping Permit Number OD 87-01

Pursuant to Section 102 of the Marine Protection, Research and Sanctuaries Act of 1972 (MPRSA), as amended (33 U.S.C. 1401 et seq.) and 40 CFR 222.3 of EPA's Ocean Dumping Regulations and Criteria (42 FR 2462 et seq., January 11, 1977), notice is hereby given of receipt by this office of complete applications for a permit to transport and dump materials into ocean waters from:

Star-Kist Foods, Inc.
180 East Ocean Boulevard
Long Beach, California 90802

and

Ralston Purina Co., Inc.
Van Camp Seafood Division
Checkerboard Square
St. Louis, Missouri 63164

on behalf of their respective subsidiary companies

Star-Kist Samoa, Inc.
P.O. Box 368
Pago Pago, American Samoa 96799

and

Samoa Packing Company, Inc.
P.O. Box 957
Pago Pago, American Samoa 96799

TENTATIVE DETERMINATION

EPA has made the tentative determination to issue a research ocean dumping permit to Star-Kist Samoa and Samoa Packing Company for a six month period. The agency has determined that a permit is required for ocean disposal of fish cannery wastes produced at the American Samoa canneries. Information developed during the permit period and data gathered as required in ocean dumping permit OD 86-01 will be used to determine whether dumping on a more permanent basis would unreasonably degrade or endanger human health, the marine environment, ecological systems or economic potentialities [33 U.S.C. 1412a(1)(B)].

The scale of the proposed dumping during the research period is expected to have minimal adverse impact on human health and/or the environment. While more data are needed to confirm the absence of unreasonable adverse effects from the discharge of fish wastes adulterated with alum and a coagulant polymer, the existing data and data obtained from ocean dumping permit OD 86-01 indicate that impacts at the site should be minimal. The primary

CONCURRENCE W-5-1 PChan 7/20/87 | W-5-3 [illegible] 7/20/87 | W-5-3 Hashimoto 7/21/87 | W-5-3 Hashimoto for Barsamian 7/21/87 | OOPM Lovelace 7/21/87 | W-1 [illegible] 7/21/87 | W-[illegible] [illegible] 7/21/87

environmental impact of the proposed discharges would be short-term increases in turbidity, inorganic nutrients, biological oxygen demand and ammonia during the dumping event. Preliminary scientific studies of ocean disposal of dissolved air flotation (DAF) sludge in American Samoa indicate that water quality parameters should return to ambient conditions following the period of initial mixing after an ocean dumping event. To ensure that American Samoa Water Quality Standards are not exceeded after the period of initial mixing, restrictive disposal rates and limitations on the waste material constituents have been included in the permit. Hence, EPA believes that the benefit of assessing the impact of discharging fish cannery wastes outweighs any adverse impact that may occur as a result of permitting the discharge for six months.

During the term of the permit, the permittees will be required to jointly conduct a revised EPA Region 9-approved site monitoring program, including laboratory analyses and possible bioassays, to document that the American Samoa Water Quality Standards are met and environmental impacts in the ocean are minimal. Information gathered during the term of this research permit will be used to augment EPA's efforts to formally designate an ocean disposal site, according to EPA's voluntary environmental impact statement policy for ocean disposal sites (39 FR 37119, October 24, 1974), and issue a special permit under 40 CFR 227, if appropriate.

SUMMARY OF APPLICATION INFORMATION

Star-Kist Samoa and Samoa Packing Company propose to ocean dump waste materials resulting from their fish processing plants in Pago Pago, American Samoa. The materials to be disposed are fish processing wastes, including DAF sludge, precooker water, press water and grit. The material will be discharged at a site 2.1 nautical miles southeast of Tutuila Island, near Pago Pago, water depth at the site is approximately 5,400 feet. The disposal site is a circle with a diameter of 1.5 nautical mile, centered at 14° 22' 11" South latitude by 170° 40' 52" West longitude.

The waste materials are produced during the canning process at the two plants. DAF sludge is the material that remains after treatment of fish processing waste to remove grease and suspended particulate matter. Odor reducing chemicals and coagulants are added to the sludge before it is removed from the plants. Precooker water is a combination of stick water and other process waste water that collects under the steam precookers. Press water is waste water produced at the fish meal plants when fish scrap is cooked and pressed before being dried to produce a livestock food meal. Grit is composed of solids that have settled out in a surge tank at the processing plant before the wastes are treated. Based on the dilution levels expected at the dump site, the waste materials are not expected to cause significant long-term impacts to oceanic water quality as defined in the American Samoa Water Quality Standards.

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Total Maximum Daily Volume	200,000	56,900	256,900
Grit[a]	100 tons/month		100 tons/month

a = Star-Kist Samoa only

PUBLIC COMMENTS AND INITIATION OF HEARINGS

Within 30 days of the date of this notice, any person may request a public hearing to consider the issuance or denial of, or the conditions to be imposed upon this permit. Any such request for a public hearing must: 1) be in writing; 2) identify the person requesting the hearing; and 3) state any objections to the issuance or denial of, or to the conditions to be imposed upon this permit, and the issues which are proposed to be considered at the hearing. In accordance with 40 CFR 222.4 the Regional Adminsitrator's determination on whether or not to hold a public hearing shall be based on whether the request presents genuine issues of policy or facts amenable to resolution by public hearing.

The Administrative Record, which includes the application, the draft permit and other relevant documents, is available for public review Monday through Friday from 9:00 am to 4:00 pm at the EPA address shown above, or at the Environmental Quality Commission, Office of the Governor, Pago Pago, American Samoa 96799, telephone 633-2682. Persons wishing to comment upon or object to the tentative determination may do so by submitting such written comments within 30 days of the date of this notice to:

U.S. Environmental Protection Agency
Region IX
Attn: Patrick Cotter (W-5-3)
215 Fremont Street
San Francisco, California 94105
Telephone (415) 974-0257

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